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HAZARDOUS CONTAMINANTS
COORDINATION BRANCH
135 ST. CLAIR AVENUE WEST
TORONTO, ONTARIO M4V 1P5

PROTOCOLS FOR HANDLING FARM POLLUTION INCIDENTS

OCTOBER 1988

STANDARDS DEVELOPMENT BRANCH
135 ST. CLAIR AVENUE WEST
TORONTO, ONTARIO M4V 1P5

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Prepared by:

The OMAF/MOE Working Group on
Development of Farm Pollution Protocols

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INTRODUCTION

The use of rural natural resources is increasing. With this increase in use, the problem of resource degradation becomes more acute and the number of conflicts is on the rise. Ontario is committed to the protection of rural resources in the interests of long-term economic prosperity and the maintenance of the quality of life of its citizens.

The proper management of rural resources requires a long-term government commitment through the introduction of codes, guidelines and policies; the carrying out of studies; and the implementation of technical and financial assistance programs. Cooperation between the Ministry of Agriculture and Food (OMAF) and the Ministry of the Environment (MOE) and the coordination of the activities of their staff are also required to resolve the short-term environmental problems.

1. Government Commitment to Resolve Long-term Rural Environmental Problems

1.1 Codes, Guidelines and Policies

Cooperation between OMAF and MOE in managing farm pollution dates back to the introduction of the Agricultural Code of Practice in 1976. The code was devised to reduce conflicts between rural non-farm residents and livestock operators. It established rules for separation distances between livestock structures and residential areas and provided guidelines for manure management.

In 1978, the Food Land Guidelines were first published. These guidelines had the intent of reducing the loss of agricultural land through conversion and fragmentation. By managing land use change, the Food Land Guidelines also reduce the likelihood of conflicts between agricultural and non-agricultural residents.

In 1986, a new Foodland Preservation Policy, which was to replace the Food Land Guidelines, was issued jointly by the Minister of Agriculture and Food and the Minister of Municipal Affairs. The new policy tightens the restrictions on severances, shortens the time frame for committing land for future urban growth and incorporates the guidelines for separation distances between livestock structures and non-agricultural uses. This policy will become an official policy under the Planning Act and will establish a minimum level of agricultural land use management in the province.

1.2 Major Nonpoint Agricultural Studies in Ontario

Interest in nonpoint source pollution from agricultural and urban areas has increased substantially in recent years as discharges from municipal and industrial areas have come under increasing control. In Ontario, a large number of studies have been carried out by various government agencies and research institutions. Prominent among the studies are the Pollution from Land Use Activities Reference Group Program (PLUARG), the Grand River Basin Water Management Study, the South Nation River Basin Development Study, the Thames River Water Management Study, the Stratford-Avon River Environmental Management Project, and the Lake Simcoe Environmental Management Study. Currently, OMAF and MOE are cooperating on the Parkhill Watershed Study and on the Rural Beaches Program.

Results from these studies have sharpened our awareness of the key issues of agricultural nonpoint source pollution and increased our understanding of the difficulties we face in bringing this pollution under control. At present, the emphasis for the control of agricultural pollutant sources is being placed upon the concept of best management practices. This concept is based on the assumption that environmental objectives and sound agricultural practices are consistent, and acceptable environmental standards can be met in a manner which is practical and reasonably economical for the farmer.

1.3 Ontario Technical and Financial Assistance Programs

To help resolve the long-term agricultural nonpoint source problems in Ontario, OMAF introduced on April 1, 1986 the Ontario Soil Conservation and Environmental Protection Assistance Program (OSCEPAP). This is an improved four-year, \$22 million program to provide capital grants for soil conservation projects, manure storages, milkhouse and parlour washwater disposal and pesticide handling facilities on Ontario farms.

In order to encourage more farmers to build specific structures to improve instream water quality, MOE introduced on January 19, 1987 the OSCEPAP Enhancement Program which enhances the OMAF program by \$1 million a year for four years.

The Soil and Water Environmental Enhancement Program (SWEEP) is a \$30 million federal-provincial agreement, announced on May 8, 1986, and designed to improve soil and water quality in southwestern Ontario over the next five years.

To encourage sound land management practices, the Ontario Government announced on April 28, 1987 the Land Stewardship Program (LSP). The LSP is a three-year, \$40 million program to provide financial assistance to farmers for restoring soil productivity and reducing environmental damage on both productive and marginal lands.

There is no doubt that all the above programs will contribute positively to the solution of long-term agricultural nonpoint source problems in the province.

2. Government Commitment to Resolve Short-Term Environmental Problems

One area, in which cooperation among OMAF and MOE staff is critical, is the management of the short-term farm pollution incidents. Traditionally, staff of both Ministries cooperated well on the solution of the day-to-day environmental problems. Various local offices, however, have developed their own mode of handling these matters which is not necessarily similar to those in other offices.

In order to address the short-term environmental problems in an orderly and timely manner, on a province-wide basis, and to convey to the public a sense of consistency and unity of purpose, a coordinated government approach is required. One approach that meets this need is the development of joint OMAF/MOE protocols for handling farm pollution incidents.

Protocols (or set of procedures) agreed to by OMAF and MOE will provide field staff from both Ministries with a tool to handle pollution problems as they arise and will help to identify the Ministry responsible for client contact according to the problem identified.

2.1 Protocols for Handling Farm Pollution Incidents

In recognition of the need for protocols to deal with farm pollution problems, the MOE/OMAF Deputy Ministers' Liaison Committee instructed on April 10, 1986 that a Working Group consisting of representatives from OMAF and MOE be formed to develop the detailed protocols.

The Working Group commenced its work on December 10, 1986 and identified its Terms of Reference to be as follows:

- Develop protocols on handling farm waste incidents; improper disposal of dead animals; pesticide incidents involving crop or vegetation damage and livestock or human health hazards; well water quality problems; Certificate of Compliance Program; Minimum Distance Separation Formula 1; noise, odour, and other nuisance type incidents; and media contacts.

- Submit the first draft of protocols to the Liaison Committee by the end of August 1987;
- Encourage and promote education of the farmer and staff of OMAF and MOE on farm pollution problems and programs; and
- Assemble and distribute pertinent background information to members for dissemination to OMAF and MOE staff.

2.1.1 Membership of the Working Group

Ministry of Agriculture and Food

Sam Singer	- Soil and Water Management (Co-chairman)
Ralph Clayton	- Soil and Water Management
Wendy Ferguson	- Soil and Water Management (Secretary)
Keith Clarke	- Agricultural Engineering Services
Ron Fleming	- Agricultural Engineering Services
Harold House	- Agricultural Engineering Services
Dennis Martin	- Agricultural Representatives
David Murray	- Agricultural Representatives
Dr. Peter Oliver	- Animal Industry
Neil Smith	- Foodland Preservation

Ministry of the Environment

John Kinhead	- Water Resources (Co-chairman)
Dennis Draper	- Water Resources
Doug Morrow	- Southwestern Region
Willard Page	- Southwestern Region
Denis Veal	- Southwestern Region
Murray German	- Southeastern Region
Jim Clifford	- Environmental Approval and Land Use Planning

Four subgroups have been formed to develop protocols for each of the above mentioned issues. These subgroups are comprised of members from the Working Group and additional OMAF and MOE staff.

2.1.2 Membership of the Subgroups

A. Subgroup on Protocols for Handling Farm Waste Incidents and Improper Disposal of Dead Animal Incidents

Ministry of Agriculture and Food

Ron Fleming - Agricultural Engineering Services
(Subgroup Co-ordinator)
Harold House - Agricultural Engineering Services
Ralph Clayton - Soil and Water Management
Dennis Martin - Agricultural Representatives
Dave Murray - Agricultural Representatives
Dr. Peter Oliver - Animal Industry

Ministry of the Environment

Dennis Draper - Water Resources
Willard Page - Southwestern Region
Denis Veal - Southwestern Region

B. Subgroup on Protocol for Handling Pesticide Incidents Involving Crop or Vegetation Damage and Livestock or Human Health Hazards

Ministry of Agriculture and Food

Dave Murray - Agricultural Representatives
Wayne Roberts - Plant Industry
Len Senyshyn - Soil and Water Management

Ministry of the Environment

Doug Morrow - Southwestern Region (Subgroup
Co-ordinator)
Wray Lampman - Southwestern Region

C. Subgroup on Protocol for Handling Well Water Quality Incidents

Ministry of Agriculture and Food

Ralph Clayton - Soil and Water Management (Subgroup
Co-ordinator)
David Fay - Soil and Water Management

Ministry of the Environment

Dan Brown - Southwestern Region
Phillip Bye - Southwestern Region
Clyde Hammond - Southeastern Region

- D. Subgroup on Protocols for Handling the Certificate of Compliance Program; Minimum Distance Separation Formula 1; and Noise, Odour, and Other Nuisance Type Incidents

Ministry of Agriculture and Food

Neil Smith - Foodland Preservation (Subgroup
Co-ordinator)
Keith Clarke - Agricultural Engineering Services

Ministry of the Environment

Jim Clifford - Environmental Approvals and Land Use
Planning

The protocols set out in this document are intended to be used by OMAF and MOE field staff when dealing with citizen requests, complaints or problems related to farm pollution problems. Its goal is to assist staff of both Ministries to resolve these matters in an orderly and timely manner. The protocols are not intended to interfere with the Ministries' roles in planning, approvals, abatement, research and funding as described by legislation.

Each protocol has been placed in a separate section so that it can be easily updated as new material becomes available. Each section is dated, paginated separately, and contains its own reference list and pertinent internal Ministry operating procedures and policies.

The Working Group intentionally repeated the internal Ministry operating procedures and policies in several protocols where applicable. This allows staff to have at their disposal all the information that relates to the problem on which they are working in one section.

Information which is relevant to all the protocols, such as the list of contacts, has been placed in appendices at the end of the document.

1. PROTOCOL FOR HANDLING FARM WASTE INCIDENTS

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1. PROTOCOL FOR HANDLING FARM WASTE INCIDENTS

1.1 APPLICABILITY

This protocol deals with contamination of surface water and tile drainage systems by farm waste. For the remainder of this protocol, the term surface water will include watercourses and tile drainage systems. Farm pollution problems associated with ground water are addressed in the section on Well Water Quality Incidents.

1.2 BACKGROUND

Surface water can become contaminated by the entry of manure, animal feed, chemicals including pesticides, milkhouse wastes, and sewage sludge into the water either by runoff or as a result of livestock watering in streams. These wastes tend to increase the nutrient, chemical, and bacterial levels and decrease the amount of oxygen in surface waters. As a result, water quality may become impaired for certain uses.

The Ontario goal with respect to surface water is "to ensure that the surface waters of the Province are of a quality which is satisfactory for aquatic life and recreation". Water which meets the Provincial Water Quality Objectives for these two uses will be suitable for most other beneficial uses, such as drinking water and agriculture. (MOE, 1984).

In addition to government programs which address the issue of controlling farm waste, technical advice is available from the local OMAF agricultural engineers, OMAF agricultural representatives, and MOE District Officers.

Several statutes relate to farming practices, the discharge of waste into the environment, and surface water quality. These include the Ontario Water Resources Act, the Environmental Protection Act, Pesticides Act, and the Drainage Act.

Role of the Farm Pollution Advisory Committee

The Farm Pollution Advisory Committee (FPAC) is comprised of four farmers appointed by the Minister of the Environment under Section 3(i) of the Environmental Protection Act. The FPAC was formed in 1973.

The primary purpose of the FPAC is to advise MOE on whether or not in any specific situation, animal waste is handled and disposed of in accordance with "normal farming practice". This advice is considered necessary since animal

1.2

wastes disposed of in accordance with "normal farming practice" are exempt from certain provisions of the Environmental Protection Act. The Act does not define "normal farming practice". However, the FPAC assists MOE in determining what is normal and acceptable in a specific situation.

Originally, the FPAC was used to assist in resolving odour problems. However, in recent years its advice has also been obtained in situations involving water pollution and in several situations involving noise problems.

The involvement of the FPAC in livestock related pollution problems (odour and water quality situations) is covered by MOE policy 12-01 (Appendix 1.1). The involvement of the FPAC in situations involving noise stems from a previous Minister advising the Ontario Federation of Agriculture (March 9, 1984) that he would consider asking the FPAC for advice in situations involving noise and questionable farming practice.

MOE policy 12-01 (Appendix 1.1) describes the use of the FPAC in investigating livestock related pollution problems and assisting Regional staff in obtaining appropriate abatement through application of good farming practices. The key elements of this policy are as follows:

- deals with livestock-related pollution problems only
- normally staff attempt to resolve pollution problems through discussion with the farmer concerned and obtain the advice and assistance of OMAF staff
- mandatory use of the FPAC - advice of the FPAC shall be obtained prior to issuing a Control Order or laying of a charge against a farmer relating to pollution arising from livestock operations, except when the Regional Director has grounds for believing that obtaining the FPAC's advice would unduly delay urgently needed corrective action, or would not contribute to the resolution of a problem
- discretionary use of the FPAC - staff should obtain the FPAC's advice whenever it might contribute to the resolution of a livestock related pollution problem
- activation of the FPAC - Regional staff contact the Chairman when the Committee's advice is required
- the Regional Director shall decide on appropriate abatement action after reviewing the report

In some cases, MOE and/or OMAF field staff are unable to resolve complaints over farming practices or they are unsure

what action a farmer should take to stop or minimize environmental problems. In these cases, MOE staff ask the Chairman of the FPAC for advice either directly or through the Liaison Officer. MOE Staff provide the FPAC with a background information package on the situation and, where necessary, discuss it with the FPAC.

The FPAC visit the farm in question, draft a report containing conclusions and recommendations (if any) and then meet with the Liaison Officer to finalize the report. The FPAC sends the report to the Ministers of the Environment and Agriculture and Food. The Liaison Officer sends a copy of the report to the MOE field staff who requested the FPAC advice for delivery to the farmer who was visited.

There is no direct connection between the FPAC and the "Agricultural Code of Practice" published jointly in 1976 by OMAF, MOE, and HOU (Ministry of Housing) ie. one does not depend on the other. However, the FPAC is aware of the Code and may use it as a guide.

MOE is not bound by the FPAC's advice. However, field staff use the report in their subsequent discussions with the farmer and in deciding what action is appropriate.

1.3 DEFINITIONS

- | | |
|-------------------------|--|
| Joint Ad Hoc Committee | - refers to an interministry committee (may include FPAC) which will be formed, if necessary, to consult on a specific case. |
| MOE | - in this protocol, MOE usually refers to the Abatement Managers. |
| OMAF | - in this protocol, OMAF usually refers to personnel of the Agricultural Engineering Services or the Agricultural Representatives Branch. |
| Spill under EPA Part IX | - when used in reference to a pollutant, refers to a discharge (i) into the natural environment, (ii) from or out of a structure, vehicle or other container, and (iii) that is abnormal in quality or quantity in light of all the circumstances of the discharge. (EPA, S 79 (j), R.S.O. 1980) |
| Surface Water | - includes watercourses and tile drainage systems (as opposed to ground water). |

1.4 PROTOCOL

1. Contamination of surface water by farm waste is reported to either MOE or OMAF (Figure 1.1).
2. If the problem is a result of a spill under the Environmental Protection Act Part IX, then MOE becomes the lead agency. MOE will conduct a site visit and send a site visit report to OMAF. If the solution to the problem is obvious, recommendations on remedial measures will be made to the landowner. If the remedial measures are not obvious, then MOE will report the incident to a Joint Ad Hoc Committee comprised of MOE, OMAF, and others including FPAC if needed. A site visit will be made if necessary followed by recommendations to the landowner on remedial measures. The responsibility for the site visit will be delegated by the Joint Ad Hoc Committee.
3. If legal action is not warranted, then MOE will monitor the progress of the situation and upon problem resolution, send a satisfactory resolution report to OMAF. If the problem is not resolved, the question of whether legal action is warranted has to be re-examined.
4. If legal action is being considered, MOE and OMAF will enter into consultation and each party will be kept informed on the progress of the case. MOE will then recommend whether or not to take legal action. If MOE recommends legal action, MOE will proceed with legal action which may involve the Farm Pollution Advisory Committee (note a). If MOE does not recommend legal action, then MOE will monitor the progress of the situation and follow the procedure in Step 3.
5. If the contamination is not a result of a spill under EPA Part IX, then it must be determined whether or not the problem has been reported by the site owner. If the problem has not been reported by the site owner, then MOE becomes the lead agency and Steps 2 to 4 will be followed.
6. If the problem has been reported by the site owner, then it must be determined whether or not the problem is confined on-site. If the problem extends off-site, then MOE becomes the lead agency and Steps 2 to 4 will be followed.
7. If the problem is confined on-site, then OMAF becomes the lead agency. OMAF will visit the site and send a site visit report to MOE. If upon further investigation it is determined that the problem is not

confined to the site, then MOE becomes the lead agency and Steps 2 to 4 will be followed.

8. If the problem is indeed confined to the site, then OMAF will make recommendations on remedial measures to the landowner. OMAF and the landowner will monitor the situation. Upon resolution of the problem, OMAF will send a satisfactory resolution report to MOE. If the problem is not resolved, then Step 8 will be repeated.

NOTES:

- a) The principles and procedures used by MOE to deliver a uniform approach to enforcing its Acts and Regulations are found in the MOE Policy No. 05-05 (Appendix 1.2). A description of MOE's Pollution Abatement Program is found in MOE Policy 05-02 (Appendix 1.3).

1.5 LEGISLATION

Ontario Water Resources Act (MOE)

Section

- 14 - defines impaired water quality
- 15 - MOE responsible for surface and ground water, may examine for pollution, may get injunction prohibiting discharge
- 16 - discharge of polluting material prohibited, Minister to be notified of abnormal discharges into water
- 17 - may prohibit or regulate discharge of sewage
- 20 - controls the taking of water
- 44 - regulations may be made for:
 - (h) prescribing drinking water quality standards
 - (r) controlling the use of water from any supply

Environmental Protection Act (MOE)

Section

- 5 - no discharge of contaminants into the natural environment in excess of regulations.
 - (2) exempts animal wastes disposed of in accordance with normal farming practice
- 6,7 - control orders and stop orders can be issued to person(s) responsible for contamination
- 8 - approval required for discharge of contaminant
- 9,10 - submission and approval of program to prevent or reduce and control discharge of contaminant
- 12 - notification of Ministry required if contaminant is discharged in excess of normal levels

- 13 - discharge of harmful contaminants prohibited
- 14 - Ministry to be notified if a harmful contaminant is discharged
- 16 - Minister may order all steps necessary to repair damage

Part IX Spills

- 79(1)(j) - defines a spill. When used in reference to a pollutant, a spill refers to a "discharge (i) into the natural environment, (ii) from or out of a structure, vehicle or other container, and (iii) that is abnormal in quality or quantity in light of all the circumstances of the discharge"
- 79(4) - doesn't apply to animal wastes if in accordance with normal farming practice
- 80(1) - person having control must notify Ministry if the spilled pollutant causes or is likely to cause impairment of the natural environment, injury or damage to property, plant, or animal life, harm or discomfort to any person, loss of enjoyment of normal use of property, adversely affects the health of any person, impairs the safety of any person, renders property, plant or animal life unfit for use by man, or interferes with the normal conduct of business
 - 81 - owner must do everything practicable to prevent, eliminate and ameliorate the adverse effects
 - 84 - no disposal of pollutant without approval
 - 85 - orders by Minister to take action for amelioration of adverse effects
 - 87 - compensation for damage from spills (ECC)

Pesticides Act (MOE)

Section

- 4 - prohibits improper use of pesticides
- 20,21 - stop orders and control orders may be made for improper handling, storage, use, disposal, transport or display of pesticides
- 22 - notification to MOE of abnormal pesticide discharges required
- 23 - Minister may order responsible party to repair, decontaminate or prevent impairment to environment from improper pesticide use
- 28 - regulations may be made regarding:
 - (22) storage, use, disposal, display and
 - (30,31) transport of pesticides
 - (34) measures to be taken to clean or decontaminate environment that has come in contact with pesticide

Drainage Act (OMAF)

Section

- 83 - prohibits the discharge of polluting substances into drains

NOTE:

FLOW CHART IS PREPARED FOR PURPOSES OF
CONVENIENCE ONLY. FOR ACCURATE ACTION,
PLEASE REFER TO THE TEXT.

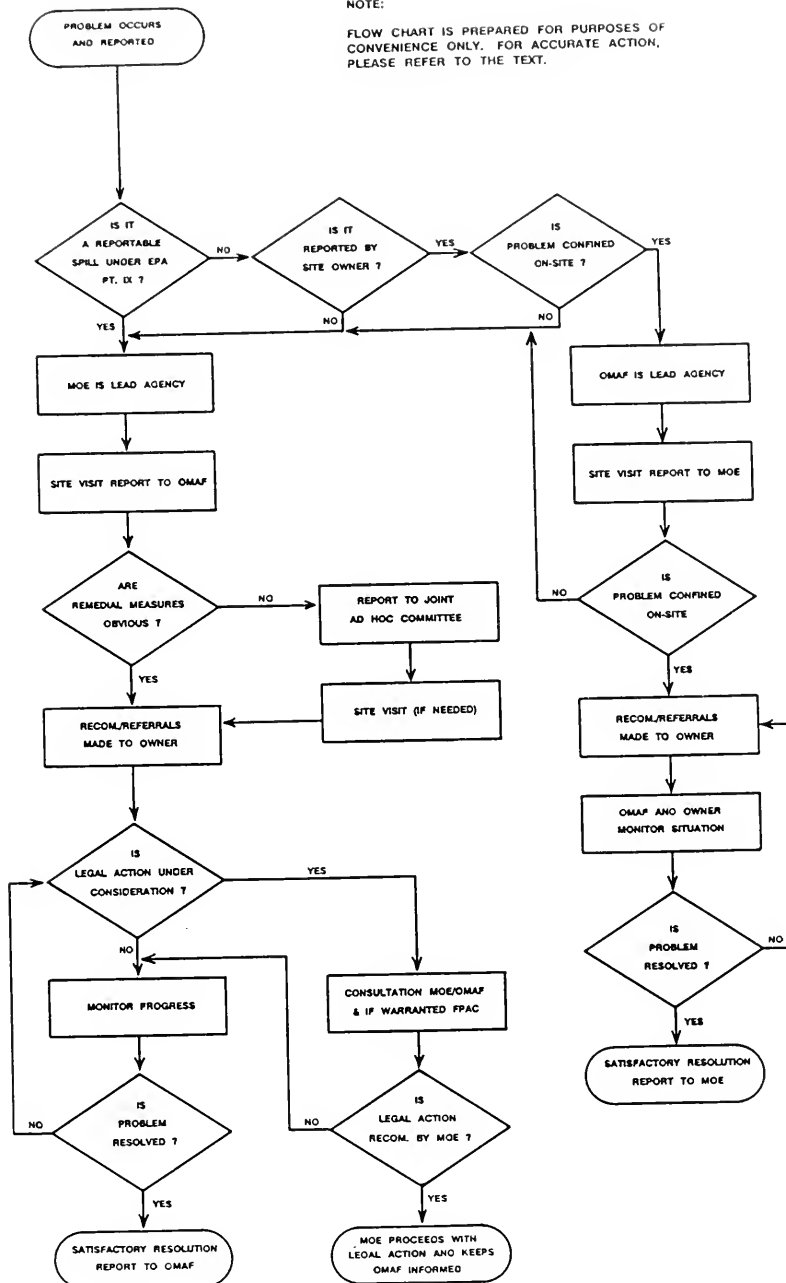


FIGURE 1.1 PROTOCOL FOR HANDLING FARM WASTE INCIDENTS

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GUIDELINES

Ministry of Agriculture and Food, Ministry of the Environment, and Ministry of Health, 1986. Guidelines for Sewage Sludge Utilization on Agricultural Lands.

LEGISLATION AND RESPONSIBLE AGENCY

Drainage Act, R.S.O. 1980, Chapter 126 as amended.
(Ministry of Agriculture and Food)

Environmental Protection Act, R.S.O. 1980, Chapter 141 as amended.
(Ministry of the Environment)

Ontario Water Resources Act, R.S.O. 1980, Chapter 361 as amended.
(Ministry of the Environment)

Pesticides Act, R.S.O. 1980, Chapter 376 as amended.
(Ministry of the Environment)

APPENDIX 1.1

USE OF FARM POLLUTION ADVISORY COMMITTEE
(MOE POLICY NO. 12-01)POINT OF CONTACT

Director
Environmental Approvals and Land Use Planning Branch

LEGISLATIVE AUTHORITY

The Environmental Protection Act

STATEMENT OF PRINCIPLES

This policy describes the use of the Farm Pollution Advisory Committee in investigating livestock-related pollution problems and assisting Regional staff in obtaining appropriate abatement through application of good farming practices. The procedures described in this policy are intended to be applied in livestock-related pollution problems as substitutes for procedures described in Sections 1.3-1.5 of Policy 05-02 Pollution Abatement Program: Development, Compliance and Enforcement.

1. Objectives

The purpose of this policy is to provide guidance to Ministry staff on how to obtain and use the services of the Farm Pollution Advisory Committee.

2. Abatement Procedure For
Livestock Related
Pollution Problems

Normally Regional staff attempt to resolve pollution problems through discussion with the farmer concerned, and obtain the advice and assistance in this from representatives of the Ministry of Agriculture and Food.

3. Use of Committee

When Regional staff have been unable to reach agreement with the farmer on a voluntary basis the Committee's advice should be sought with the concurrence of the Ministry of Agriculture and Food.

3.1 Mandatory Use

The advice of the Committee shall be obtained prior to issuing a Control Order to a farmer, or laying a charge against a farmer relating to pollution arising from livestock operations.

3.2 Exception

Whenever the Regional Director has reasonable and probable grounds for believing that obtaining the Committee's advice would unduly delay urgently needed corrective action, or would not contribute to a resolution, the Regional Director may refrain from seeking the Committee's advice.

3.3 Discretionary

None of the foregoing should prevent Regional staff from obtaining the Committee's advice whenever it might contribute to the resolution of a livestock related pollution problem.

4. Procedure

Regional staff will contact the chairman to activate the Committee's investigation when the Committee's advice is required.

5. Committee Report

The Committee shall forward its report on its investigation to the Minister of the Environment, and the Minister of Agriculture and Food. Copies shall be provided through the Ministry of the Environment for Regional Staff of both Ministries and for the farmer concerned.

6. Abatement Action*

The Regional Director shall decide on appropriate abatement action after reviewing the report.

* Since the formation of the MOE Investigations and Enforcement Branch (IEB), the recommendation to prosecute is made by the Investigator (IEB) and the decision to prosecute is made by the Director of IEB in consultation with the Director of Legal Services Branch, MOE.

APPENDIX 1.2

UNIFORM ENVIRONMENTAL ENFORCEMENT
(MOE POLICY NO. 05-05)POINT OF CONTACT

Director
Investigations and Enforcement Branch

LEGISLATIVE AUTHORITY

Environmental Assessment Act
Environmental Protection Act
Ontario Water Resources Act
Pesticides Act
Provincial Offences Act

STATEMENT OF PRINCIPLES

This policy describes the principles and procedures used by the Ministry to deliver a uniform approach to enforcing its Acts and Regulations. The Ministry will use an appropriate mix of legal remedies to ensure compliance with environmental law. The principles and procedures described below are to be applied to the public and private sectors.

DEFINITIONSControl Documents

A control document is any written instrument which carries statutory authority. These include Minister's reports, licences, permits, certificates of approval, control orders, orders, requirements and directions and program approvals.

Occurrence Report

A written document by which environmental incidents are reported and recommendations for action identified.

1. Principles for Uniform
Environmental
Enforcement

1.1 Prosecution
Principles

The Ministry will follow established principles of prosecution which include:

- a) Prosecution will be the result of an informed judgement which includes the proper exercise of prosecutorial discretion;
- b) Equal protection and benefit before and under the law;
- c) Prosecution will be administered in an even-handed, non-discriminatory and fair manner which advances and protects the public interest;
- d) Where there is sufficient evidence to prove all the essential elements of the offence but the proper exercise of prosecutorial discretion dictates no prosecution, the reasons for that decision shall be recorded in writing in the confidential investigative file;
- e) The penalty requested by the Crown Prosecutor upon conviction will be commensurate with the seriousness of the offence, and the circumstances of the offender including the co-operation of the offender.

1.2 Considerations in
The Application of
Prosecutorial
Discretion

For the purpose of section 1.1 a proper exercise of the principles of prosecutorial discretion shall include consideration of:

- a) whether the violation poses a significant risk or adverse effect to humans or the environment;
- b) whether pollution from the source is a serious obstacle to achievement of Ministry air quality or water quality objectives;
- c) any unsatisfactory history of pollution control or negative attitude as indicated by the level of effort;
- d) any unsatisfactory record of compliance with Ministry orders;
- e) whether the violation seems deliberate in nature or, if not deliberate, the degree of negligence involved;
- f) whether there has been concealment of information;
- g) whether the violation was repeated or a warning was disregarded;
- h) whether the prosecution is likely to have a deterrent effect on the sector generally or on others;
- i) whether the credibility of the regulatory process with those regulated and the public requires prosecution; or

- j) whether failure to prosecute would tend to bring the law into disrepute.

A minor offence may be prosecuted by way of ticket procedures.

1.3 Control Documents

The Ministry will use control documents as a means of limiting, eliminating and controlling pollution in Ontario. Any control document issued by the Ministry will be binding and enforced.

1.4 Preparation of Control Documents

Subject to the legislation and to other policies, control documents should be prepared such that they:

- a) require intermediate steps in a control order to be completed in a timely and regular fashion;
- b) require the installation of the pollution control equipment by the date specified;
- c) require that pollution control equipment, once installed, is properly maintained and operated;
- d) require that pollution control equipment be upgraded or modified as required to prevent occurrences;
- e) specify the emission, discharge, and monitoring requirements that must be met;
- f) include procedures to be followed during start-up, shutdown and breakdown, maintenance and decommissioning periods;

- g) require that once equipment is installed, the person responsible so certifies in writing; and
- h) require that once installed equipment is operating as required, the person responsible so certifies in writing.

1.5 Responsibility
for Emissions
and Discharges

The operator of any facility is at all times including during start-up, shutdown, breakdown, maintenance or decommissioning responsible to control emissions and discharges.

1.6 Changes in Status

The Ministry will ensure that conditions be included in all control documents requiring that the person subject to them report any significant changes that are made in the operation of the facility, emissions or discharges, or the legal status of the operation.

1.7 Requests for
Abatement

- a) Where the Ministry makes a written request for action to reduce, prevent or eliminate pollution, a reasonable time to comply will be specified;
- b) In cases where compliance with written requests is not forthcoming within 180 days maximum, the Director and the Investigations and Enforcement Branch will apply formal sanctions against the polluter. This does not prevent the application of sanctions in a shorter time period. Sanctions may include additional terms or conditions on an approval or control order, or prosecution.

- c) Policy 05-02 Pollution Abatement Program: Development, Compliance and Enforcement describes the Ministry's abatement program.

2. Procedures for the Implementation of Uniform Environmental Enforcement

2.1 Monitoring

Control documents will be reviewed regularly by the Operations Division to ensure compliance based on regular inspection, testing and monitoring consistent with administrative priorities and the nature of the facility.

2.2 Evaluation Procedures

The Director of the Environmental Approvals and Land Use Planning Branch will develop procedures for evaluation of applications for approval and apply them when considering applications.

2.3 Control Document Update

A periodic review should be undertaken by the Regional Director of control documents issued by the Ministry to ensure that they are current.

2.4 Occurrence Reports

Ministry staff will be required to document in an Occurrence Report any observed or reported violations. Also any action requested by the Ministry to address an occurrence should be documented in writing.

2.5 Examination of Financial Capability

Policy 02-01 Guidelines for an Economic Analysis of Private Sector Pollution Abatement and Environmental Protection Measures describes the content and application of economics and financial analyses to pollution abatement activities.

APPENDIX 1.3

POLLUTION ABATEMENT PROGRAM:
DEVELOPMENT, COMPLIANCE AND ENFORCEMENT
(MOE POLICY NO. 05-02)

POINT OF CONTACT

Operations Coordinator
Operations Division

LEGISLATIVE AUTHORITY

the Environmental Protection Act
the Ontario Water Resources Act
the Pesticides Act

STATEMENT OF PRINCIPLES

This policy describes the Ministry's pollution abatement program. The policy relates to all sources of pollution requiring the design, approval, delivery and installation of facilities or operational improvement(s). Additional requirements relating to particular sources of pollution, such as Policy 05-03, will be found in other policy statements.

DEFINITIONSProgram Approval

A "Program Approval" refers to a document describing and approving a schedule of abatement activity submitted by a polluter to the Ministry and approved.

Legislative Authority:
The Environmental Protection Act Sections 9, 10, 11, 18.

Director Issued Order

A "Director Issued Order" refers to an order or requirement issued by the Ministry which is not specifically covered by other definitions. A Director is any staff person appointed by the Minister for the purposes of the Act.

Legislative Authority:
The Environmental Protection Act Sections 7, 18, 19, 42, 57, 68, 69.

The Ontario Water Resources Act Sections 17, 23, 24, 43, 51, 61.

The Pesticides Act Sections 11, 21, 24.

Control Order

A "Control Order" refers to a requirement by the Ministry for specified abatement actions to be accomplished under a given schedule. Such Orders are generally issued as a result of a contravention of Section 13 of the Environmental Protection Act or a contravention of a standard or regulation. Control Orders include Requirements and Directions issued under The Ontario Water Resources Act.

Legislative Authority:
The Environmental Protection Act Sections 6, 14, 113, 114, 115, 116.

The Ontario Water Resources Act Sections 20, 23, 24, 32, 51, 52, 61.

The Pesticides Act Sections 13, 21, 22, 23, 24.

Provincial Officer's Requirement

A "Provincial Officer's Requirement" refers to the authority of a Provincial Officer to survey, collect information and report on contaminant sources. A Provincial Officer is any person designated by the Minister for the purpose of the Act. Such requirements also include the requirement of an employee or agent of the Minister having a similar authority under The Ontario Water Resources Act.

Legislative Authority:
The Environmental Protection
Act Sections 127, 128, 129,
130.

The Ontario Water Resources
Act Section 10.

The Pesticides Act Section 17.

Stop
Order

A "Stop Order" is a requirement by the Ministry for an immediate stop to the addition, discharge or emission of a contaminant either permanently or for a specified period. Stop Orders include Emergency Orders issued under The Ontario Water Resources Act.

Legislative Authority:
The Environmental Protection
Act Sections 7, 12, 112, 117,
118, 119.

The Ontario Water Resources
Act Section 62.

The Pesticides Act Section 20.

Notice
of Intent

A "Notice of Intent" is a notice which is served to provide written notification of a Director's intention to issue a Control Order, the reasons for the order and a copy of the report explaining the reasons. This notice must be served at least 15 days prior to the issuance of a Control Order.

Legislative Authority:
The Environmental Protection
Act Section 116.

The Ontario Water Resources
Act Section 61.

The Pesticides Act Section 13.

1. Abatement Program
Development Process

1.1 Problem
Definition

The Ministry will begin the development of a pollution abatement program by defining the environmental problem(s).

1.2 Report
Preparation

Where there is a severe, long-standing problem having a large degree of environmental impact, the Ministry will ask the company or person responsible for the problem to prepare a report outlining the technical options available for correcting the defined problem. In preparing this report, the company should address factors such as technical options, capital investments required, operating costs, economic feasibility, socio-economic implications and environmental benefits.

1.3 Commencement
of Abatement
Discussions

Once the report prepared under 1.2 is complete, specific abatement discussions with the polluter will commence. Available financial assistance programs will be thoroughly reviewed and discussed during abatement discussions.

1.4 Request for
a Program
Approval

Where the polluter agrees to prepare the report and wishes to enter into a Program Approval the Ministry will allow its use only when the following conditions are met:

- (a) The polluter has demonstrated good faith through responsible timely pollution abatement in the past, or
- (b) The Ministry staff are confident of the polluter's intent and ability to implement a Program Approval.

1.5 Program
Approval
Components

The following items will be contained in a Program Approval:

- (a) A clear commitment by the polluter subject only to a "force majeure" clause acceptable to the Director;
- (b) Signatures of Senior Officers of the polluting firm under corporate seal;
- (c) Assurance that the polluter has the financial capability and has earmarked these funds;
- (d) Staged dates for each item;
- (e) A description of the pollution problem and how the polluter will resolve this by the program;
- (f) A statement that the polluter has investigated the options to its satisfaction and agrees that the proposed remedial project is technically feasible;
- (g) A commitment to supply the Ministry with copies of documents (i.e. purchase orders, designs, contracts with consultants or contractors) as evidence of compliance with the various stages of the abatement program;

- (h) A statement that the Program Approval is limited in its application to those parts of the plant or those processes or those contaminants specifically referred to in the Program Approval;
- (i) A statement that time is of the essence to achieve the desired results;
- (j) A statement that failure to meet any part constitutes failure to comply with the whole Program Approval;
- (k) An agreement that the Program Approval be made public and, if requested by the Ministry, a willingness to participate in the public process respecting the proposed Program Approval.

1.6 Alternative
Program
Measures

If an abatement program cannot be assured after a reasonable period of discussion with the polluter not exceeding six months then alternative measures will be used to ensure abatement:

1.6.1 Orders
and
Requirements

Director Issued Orders, Control Orders, or Provincial Officer's Requirements may be employed by the Ministry to bring about pollution abatement.

1.6.2 Stop
Orders

Where there is an immediate danger to human life and health or to property, a Director may issue a Stop Order directed to the person responsible for the source of the contaminant. In choosing this course of action, a Director will seek legal

advice and obtain the consent of the Assistant Deputy Minister.

1.6.3
Prosecution

Directors may recommend prosecution as follows:

- (a) In any case where it would be appropriate and just to do so, taking into account all the circumstances, or
- (b) In place of, to supplement or to enforce Orders where, in their opinion, abatement would be successfully achieved more quickly.

1.6.4
Voluntary
Abatement

The normal inspection and complaint investigation activities, followed by voluntary abatement actions, will continue and are not restricted by any of the foregoing points.

1.7 Report and
Review Made
Public

Where the company or owner has prepared the report referred to in 1.2, the Ministry will prepare a written review of it, and both reports will be made public, subject to the confidentiality of proprietary information. Both reports will be distributed to local MPP's and Municipal Officials.

1.8 Refusal to
Prepare Report

Where the company or person refuses to prepare the report referred to in 1.2, the Ministry will prepare the report, and both the report and any response by the company will be made public. Both reports will be distributed to local MPP's and Municipal Officials.

1.9 Public
Consultation

After making the company or owner's report and the Ministry's review public as in 1.7, or after making the

Ministry-prepared report public as in 1.8, the Director will hold a public information session for significant pollution problems, or for pollution problems that generate high public interest. Local MPP's and Municipal Officials will be notified prior to the public information session.

1.9.1
Exceptions

Public information sessions will not be held for the following:

- (a) Orders under Part VII of the Environmental Protection Act;
- (b) Provincial Officer's Requirements;
- (c) Stop or Emergency Orders;
- (d) Prosecutions;
- (e) Orders for minor pollution problems.

1.10 Receipt of
Public's Comments

After making the report public as in 1.9, or after holding a public information session, the Director will receive written comments from the public for a period of thirty days.

1.11 Director's
Recommendation

After receiving public comment, the Director will take a course of action. Local MPP's and Municipal Officials will be notified regarding the Director's choice of action.

1.11.1
No Significant
Alternative
Proposals

If no significant alternative proposals are received in writing by the Director within thirty days of making his decision public, then the Director will sign the Program Approval or issue a Notice of Intent.

2.1 Delays Due
to Financial
Constraints

Any significant proposed delays in the implementation of an abatement program due to financial constraints will results in steps 1.5 to 1.12 being taken.

3. Abatement Program
Compliance

3.1 Monitoring

To ensure compliance with Program Approvals and Orders the following activities will be undertaken:

- (a) The polluter will monitor emissions or discharges and the ambient quality of air and water where specifically required by the Ministry;
- (b) The above data will be reported to the Ministry and will be available for review by the public at the local Ministry office;
- (c) The polluter will submit regular status report(s) on its compliance with the Order or Program Approval;
- (d) These reports (with the exception of proprietary information identified by the polluter and agreed to by the Ministry) will be available for review by the public at the local Ministry office;
- (e) The Ministry will audit Items (a) and (c) above, and carry out any additional tests that may be required;
- (f) The information provided by the polluter may be used for enforcement purposes.

3.2 Enforcement Action

3.2.1

General

Where a polluter is not presently under a Control Order or Program Approval, and there is a potential hazard to the environment, or where there is a discharge of a contaminant to the natural environment, the Ministry may prosecute, seek an injunction, or issue a Program Approval, Control Order, or Stop Order as conditions warrant.

3.2.2

Where a Polluter is Under a Program Approval or Order

- (a) Where a polluter is under a Program Approval or Order and has not essentially complied with the intent of any item in the Order or Program Approval, then the Ministry will prosecute.
- (b) Where a polluter is under a Program Approval or Order and is complying fully with its terms, the Ministry will not prosecute in respect of those items covered by the Order or Program Approval.
- (c) Where a polluter is under an Order or Program Approval and is in violation of items not covered by a Program Approval or Order, and where conditions warrant, the Ministry may prosecute.

3.2.3

Prosecution by Other Parties

Where the Ministry has decided not to prosecute a polluter, the Ministry will make information regarding the pollution available to other parties upon request, subject to constraints imposed by legislation.

3.3 Amendments or Extensions

3.3.1 Increased Time or Loading

If the polluter wishes to significantly extend the time allowed in the Order or Program Approval or increase the loading above that specified, such amendments will be subject to the process described previously by items 1.5 to 1.12.

3.3.2 Shorter Time and Loading

If the polluter proposes a change with the same or shorter time frame, or the same or lesser loading, the Order or Program Approval will be amended by the Ministry and distributed to local MPP's and Municipal Officials.

3.3.3 Short Term Extensions

When an extension is requested because of matters beyond the control of the polluter, the Ministry may extend an Order or Program Approval on a short term basis and it will be distributed to local MPP's and Municipal Officials.

3. If the ownership of the animal is not known, then it must be determined if the reaction time is critical (ie: is it an immediate threat to a recreational area or water intake). If the reaction time is critical, then MOE becomes the lead agency and it will arrange for proper disposal of the animal.
4. If the reaction time is not critical, then the OMAF inspector will investigate and attempt to identify the owner. If the owner is still unknown and the animal is found on public land, OMAF will cooperate with the municipality or the roads department to dispose the animal. If the animal is found in a watercourse, OMAF will cooperate with the local Conservation Authority to ensure disposal of the animal. If the animal is found on a property other than the owner of the animal, OMAF will advise the landowner that it is in his interest to dispose of the animal.

NOTES:

- a) Dead animals to which the Dead Animal Disposal Act applies is exempt as waste from Part V of the Environmental Protection Act under Regulation 309.
- b) The Dead Animal Disposal Act does not deal with the situations where the owner is unknown and the reaction time is not critical. OMAF will continue to follow past practices for these situations (see Section 2.4, Step 4).

2.5 LEGISLATION

Dead Animal Disposal Act (OMAF)

Section

- 3(1) - the owner of a dead animal shall dispose of it within 48 hours of its death, (a) by burying it with a covering of at least two feet of earth; or (b) by the services of a person licensed as a collector under the Act

- | | |
|---|--|
| 1.11.2
<u>Significant
Alternative
Proposal</u> | If a significant alternative proposal is received, then the Director will conduct a second public information session. |
| 1.12 <u>Director's
Decision</u> | If in the opinion of the Director a significant change in the abatement program becomes necessary as a result of step 1.11.2, then he shall proceed to renegotiate the program with the polluter. |
| 1.13 <u>Revised
Program</u> | Once a revised abatement program is produced, steps 1.5 through 1.12 shall be repeated by the Director. |
| 1.14 <u>Publication and
Distribution</u> | Information regarding the following items will be available as specified: |
| 1.14.1
<u>Available at
Regional,
District and
Head Offices</u> | The Notice of Intent, any Program Approval, the Director's recommendation under 1.11, and the Director's decision under 1.12 will be available at Ministry Regional, District, and Head Offices. |
| 1.14.2
<u>Available at
Regional
Office</u> | Written comment from the public, significant alternative proposals received under 1.11.2, and any revised abatement program will be available at the Regional Office. |
| 1.14.3
<u>Notice of
Intent or
Program Approval</u> | The Notice of Intent or the Program Approval will be distributed to local MPP's and Municipal Officials. |
| 2. <u>Abatement Program
Administration</u> | All activities related to Program Approvals, Director-issued Orders, Control Orders, and Stop Orders will be carried out on a project management basis whereby a specified staff person is assigned the responsibility for management of abatement activities. |

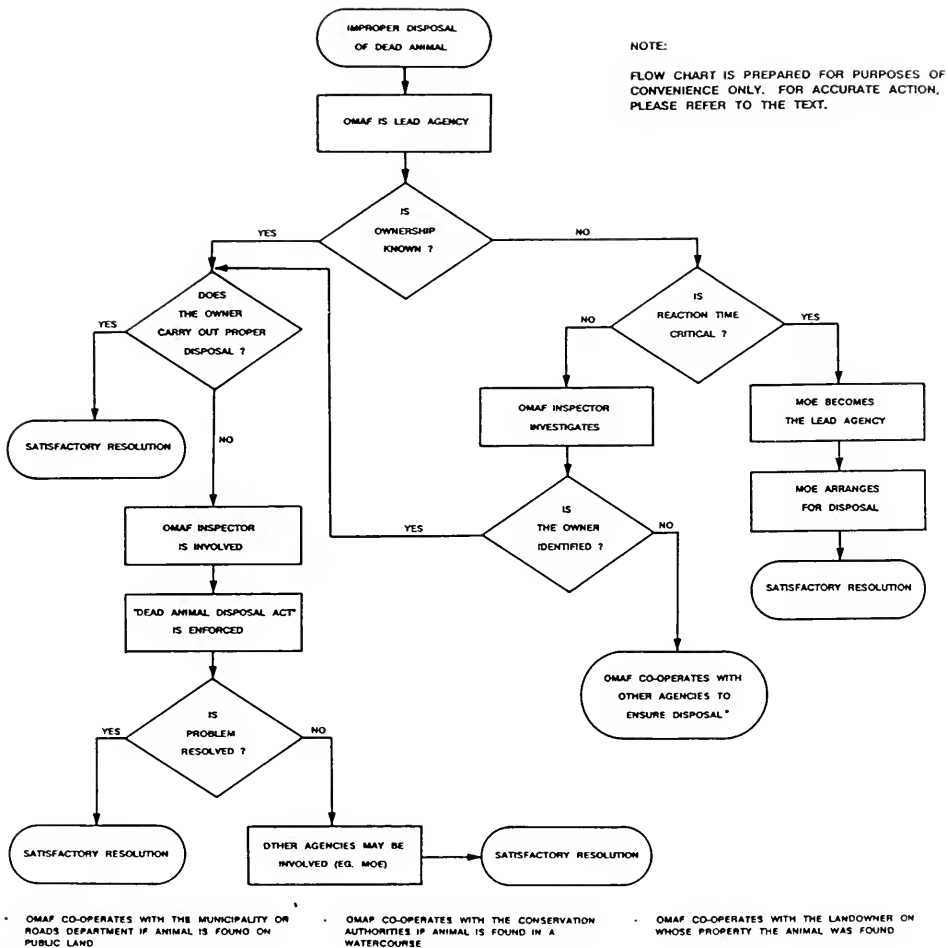


FIGURE 2.1 PROTOCOL FOR DISPOSAL OF DEAD ANIMALS

2. PROTOCOL FOR DISPOSAL OF DEAD ANIMALS

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2. PROTOCOL FOR DISPOSAL OF DEAD ANIMALS

2.1 APPLICABILITY

This protocol deals with the improper disposal of dead animals as defined under the Dead Animal Disposal Act. It does not apply to wildlife. Further the disposal of small animals and poultry is dealt with under the Agricultural Code of Practice (Appendix 2.1).

2.2 BACKGROUND

Dead animals are sometimes improperly disposed of on an owner's property, abandoned in watercourses, and abandoned on property other than that of the animal's owner. These problems are often resolved by municipal councils, Conservation Authorities and individuals and are not reported to either MOE or OMAF.

The Dead Animal Disposal Act is the primary legislation which deals with this issue.

2.3 DEFINITIONS

- OMAF Inspector - inspector appointed under the Dead Animal Disposal Act. The inspectors are part of the Investigative Unit, Quality and Standards Division of OMAF.
- Dead Animal - defined in the Dead Animal Disposal Act as "... the carcass, or any part thereof, of a horse, goat, sheep, swine or head of cattle that has died from any cause other than slaughter".

2.4 PROTOCOL

1. When the improper disposal of a dead animal is reported, OMAF becomes the lead agency (Figure 2.1).
2. If the ownership of the animal is known, the owner is responsible for proper disposal. If the animal is properly disposed of, then there is satisfactory resolution. If the animal is not properly disposed of, then the OMAF inspector becomes involved and enforces the Dead Animal Disposal Act and its regulations. If the problem is still unresolved, then other agencies may become involved including MOE.

REFERENCES

Ministry of Agriculture and Food, Ministry of the
Environment, and Ministry of Housing, 1976.
Agricultural Code of Practice.

LEGISLATION AND RESPONSIBLE AGENCY

Dead Animal Disposal Act, R.S.O 1980, Chapter 112.
(Ministry of Agriculture and Food)

APPENDIX 2.1

DEAD ANIMAL DISPOSAL
(AGRICULTURAL CODE OF PRACTICE, 1976)

Recent economic conditions have dictated some changes in the systems available for the disposal of dead animals. The disposal of dead animals is covered by the Dead Animal Disposal Act and is administered by the Veterinary Services Branch of the Ontario Ministry of Agriculture and Food.

There are five basic systems in use in Ontario (Note a):

1. Pickup by a licensed dead stock carrier. This service is not available in all areas of Ontario. Generally it is not available for small animals and poultry. If present trends continue, there may be a service charge.
2. Storage of small animals or poultry in a freezer until numbers are sufficient to warrant delivery to a rendering plant. (Only one plant accepted delivery in 1975.)
3. Disposal site on the farm. There are basically two types available:
 - a) Disposal Tank (for poultry)
The concrete tank should have a concrete top with a reasonably tight opening device for deposit of the birds. The device should be child proof. The tank should be located at least 150 feet from any well or spring.
Size suggestions:
Broilers - 20 cu.ft./1,000 birds
Layers - 100 cu.ft./1,000 birds

Many farmers build two, and when one is filled, they start filling the second tank. When it is nearly filled, the contents of the first tank are spread on the ground, and incorporated into the soil immediately (Note b).
 - b) Temporary Trenches or Pits (summer use only)
A minimum of 2 feet of soil should be placed over the carcasses. Earth should be backfilled each time additions are made.
4. Sanitary Land-fill Sites - very few sanitary land-fill sites will accept dead animals (Note c).

5. Incineration - dead animals can be adequately disposed of in properly designed incinerators. A Certificate of Approval from the Ministry of the Environment is required for all new installations. Applications and advice are available from any office of the Ministry of the Environment (See page 00 of the Agricultural Code of Practice). A properly designed incinerator will have sufficient capacity so that all odour levels will be within tolerable standards. Incinerators will usually have two burners, and require pre-heating before usage, otherwise odour levels may be too high.

Note:

- a) Of the five basic systems listed, only 1 (pickup by a licensed dead stock carrier) and 2 (storage in a freezer and then delivery to a rendering plant) are in general use.
- b) This size of tank will hold the normal mortality for a 3 to 5 year period. When nearly filled, a second tank is installed so that a further 3 to 5 year period can elapse with no additions. This allows for adequate breakdown of the contents before land spreading and incorporation.
- c) Re: Sanitary Land-fill sites - Dead animals to which the Dead Animal Disposal Act applies are exempt as waste from Part V of the Environmental Protection Act under Regulation 309.

3. PROTOCOL FOR HANDLING PESTICIDE INCIDENTS
INVOLVING CROP OR VEGETATION DAMAGE AND LIVESTOCK OR
HUMAN HEALTH HAZARDS

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3. PROTOCOL FOR PESTICIDE INCIDENTS INVOLVING CROP OR VEGETATION DAMAGE AND LIVESTOCK OR HUMAN HEALTH HAZARDS

3.1 APPLICABILITY

The following protocols deal with those instances that result in (1) damage to crops or other vegetation owned by either those using the chemicals or to their neighbours, or (2) possible health effects to farm workers, bystanders or livestock. Those instances that result in general environmental concerns are dealt with in the protocols dealing with well water quality incidents, for the case of ground water contamination; or in the protocols on farm waste incidents, for the case of surface water contamination.

3.2 BACKGROUND

Pesticides have made an important contribution to the capacity of the agricultural industry to provide the population with a wide selection of food at affordable prices. The Ministries of Environment and Agriculture and Food have long cooperated in promoting the proper and safe handling of pesticides. Despite these precautions, there will be instances, through accidents or misuse, that will result in damage to the environment or adverse health effects.

Pesticides are regulated primarily through the federal Pest Control Products Act and the provincial Pesticides Act. The federal Pest Control Products Act primarily regulates the entry of these products into the Canadian market and sets the basic requirements for labelling and safe use. The Pesticides Act controls the availability of the products in Ontario, and also regulates their storage, handling, and use. In addition to these two statutes, the prohibition of pollution found in the Ontario Water Resources Act, the Environmental Protection Act and the Drainage Act apply to pollution by pesticides.

In addition to the regulatory environment, there are several sources of technical assistance available to pesticide users. OMAF has a number of crop and pest management specialists to provide assistance on the safe and effective use of these chemicals. Advice is also available from MOE pesticide officers on the safe handling of the chemicals. OMAF and MOE are jointly providing voluntary certification courses for vendors and growers. Each year, the Ontario Weed Committee updates the Guide to Chemical Weed Control and the Ontario Crop Protection Committee updates the recommendations for pesticide use on an annual basis.

As evident from the description of the programs directed toward pesticides, both the MOE and OMAF are deeply involved in the management of pesticides. The following protocols have been developed to provide mechanisms by which the activities of the two Ministries can be coordinated in the case of a suspected pollution incident involving pesticides and by which the resources of both Ministries can be effectively utilized.

3.3 DEFINITIONS

- | | | |
|------------------------------|---|---|
| Urgent Situations | - | refers to those situations requiring urgent action such as spills, fires, theft and fish kills. |
| Lead Agency Responsibilities | - | assumes responsibility for all contact with party(ies) directly involved regarding problem identification, solution and recommendations. |
| | - | handles public response e.g. media contacts and other parties not directly involved. |
| | - | keeps other involved agencies advised of status of complaint resolution. |
| | - | responsible for contacting other agencies as required e.g. OMAF, MOE, MNR, MOH, MOL, Agriculture Canada (Plant Products Division), Health and Welfare Canada. |
| | - | keeps other agencies informed about potentially sensitive issues through written or verbal contact. |
| | - | prepares all written documentation of the complaint. |
| MOE | - | in this protocol, MOE refers to the Pesticide Officer |
| Common Occurrence Report | - | a written document by which environmental incidents are reported to the MOE enforcement officer and recommendations for action are identified. |

- | | | |
|-----------------|---|--|
| Off-Site Source | - | pesticide affecting another location outside the target area and outside owner's property. |
| On-Site Source | - | pesticide affecting target area or non-target area on owner's property. |
| OMAF | - | in this protocol, OMAF usually refers to the Soils and Crops Specialists, the Horticultural Crop Advisors, or the Agricultural Representatives |
| Target Area | - | refers to the area intended for pesticide application. |

3.4 PROTOCOL

1. Initial response is determined by the type of damage complaint. If the client does not know whether the cause of the damage is on-site or off-site, the initial visit will be by OMAF (Figure 3.1). If the client suspects an off-site source, MOE will carry out the initial visit. The client should be contacted, at least by telephone, within 24 hours of original complaint whenever possible.

The necessity of a farm visit will be decided by the responding agency. In many cases, a site inspection will be necessary to determine the source of damage and hence, the lead agency.

2. If the initial response indicates an off-site source of damage, MOE become the lead agency. All damages resulting from the actions of the client on the client's property will result in OMAF assuming the lead role.

The lead agency should note the responsibilities listed in "Definitions". Other agencies may be called in as necessary to cover specific areas within their expertise.

3. In cases where the damage is believed to be the result of the actions of the client on the client's property, OMAF will investigate and inform the client of their findings. OMAF may take samples and submit them to the OMAF Agricultural Laboratory Services Branch. OMAF will advise the client on further actions.

4. In cases where the damage is believed to be the result of an off-site source, the local MOE Regional or District Pesticides officer (depending on availability) will investigate. Samples will be taken if deemed necessary and sent to the OMAF Agricultural Laboratory Services Branch. A Common Occurrence Report is completed and sent to the regional supervisor of the MOE Investigations and Enforcement Branch. A copy of a Common Occurrence Report form is found in Appendix 3.1
5. Whether any charges will be laid is at the discretion of the MOE District/Regional Officer or the Enforcement Officer. The discretion will be applied in accordance with MOE Policy No. 05-05 on Uniform Environmental Enforcement (Appendix 3.2) (note a). The exercise of discretion shall include: the severity of the incident, history of compliance, achievement of MOE environmental quality objectives, and credibility of MOE policy and legislation.
6. Samples may be taken as evidence in court for civil cases (eg. a suit by the client against a custom sprayer) and/or to enforce statutes (eg. a charge under the Pesticides Act).

All samples of a legal nature (Appendix 3.3) should be taken by MOE staff for submission to the OMAF Agricultural Laboratory Services Branch in Guelph. The analysts in the laboratory are designated as the Official Analysts. Where the samples have been requested by OMAF, results will be sent to OMAF staff for their use.

NOTES:

- a) A description of MOE's Pollution Abatement Program is found in MOE Policy No. 05-02 (Appendix 3.4)

URGENT SITUATIONS

MOE will be the lead agency for all urgent situations involving pesticides i.e. fires, spills, theft and fish kills. It must be noted that MOL is the lead agency for problems involving safety in the workplace and MOH is the lead agency for problems involving human health.

During normal office hours, the client should be instructed to contact the nearest MOE office. After office hours, the client should contact the Ministry's Spills Action Centre (SAC) at telephone number 1-800-268-6060. SAC staff will make a preliminary response over the phone and determine if the Regional/District Emergency Response personnel should immediately investigate and resolve the problem. Otherwise, it will be handled as a normal call to the District Office.

3.5 LEGISLATION

Pest Control Products Act (Agriculture Canada)

Section

- 3 - (1) prohibition of unsafe manufacture, handling or use of pesticides
- (2) prohibition of deceptive packaging or labelling
- 4 - requirement that pesticides be registered
- 5 - regulation can be made for:
 - (a) registration;
 - (i) standards for efficacy and safety;
 - (k) packaging, labelling and advertising

Pesticides Act (MOE)

Section

- 4 - prohibits improper use of pesticides
- 5,6 - licensing of exterminators (ie. pesticide users)
- 6 - licensing of vendors
- 7 - permits for land, water and structural exterminations
- 11 - issuance, refusal and revocation of licenses and permits
- 20,21 - stop orders and control orders may be made for improper handling, storage, use, disposal, transport or display of pesticides
- 22 - notification of MOE of abnormal discharges adversely affecting environment or health
- 23 - Minister may order responsible party to repair, decontaminate or prevent impairment to environment from improper pesticide use

Regulation 751

- 21 - regulation regarding use of pesticides
- 22 - requirement for backflow device when using surface water
- 23 - prohibits the washing of equipment in surface water or in such a manner that pesticide may be discharged to surface water
- 24, 25 - regulation regarding pesticide containers and their disposal
- 98, 99 - regulation regarding storage
- 105,106 - regulation regarding transportation of pesticides

Ontario Water Resources Act (MOE)

Section

- 14 - defines impaired water quality
- 15 - MOE responsible for surface and ground water, may examine for pollution, may get injunction prohibiting discharge

- 16 - discharge of polluting material prohibited, Minister to be notified of abnormal discharges into water
- 17 - may prohibit or regulate discharge of sewage
- 20 - controls the taking of water
- 22 - controls well construction, provides for licensing of well contractors, and technicians
- 44 - regulations may be made for:
 - (h) prescribing drinking water quality standards
 - (r) controlling the use of water from any supply
 - (1a) regulating well construction, maintenance, use cleaning and decontamination, or abandonment.

Environmental Protection Act (MOE)

Section

- 5 - no discharge of contaminants into the natural environment in excess of regulations
 - (2) exempts animal wastes disposed of in accordance with normal farming practice
- 6,7 - control orders and stop orders can be issued to person(s) responsible for contamination
- 8 - approval required for discharge of contaminant
- 12 - notification of Ministry required if contaminant is discharged in excess of normal levels
- 13 - discharge of harmful contaminants prohibited
- 14 - Ministry to be notified if a harmful contaminant is discharged
- 16 - Minister may order all steps necessary to repair damage

Part IX Spills

- 79(4) - doesn't apply to animal wastes if in accordance with normal farming practice
- 80 - person having control must notify Ministry, etc.
- 81 - owner must do everything practicable
- 84 - no disposal of pollutant without approval
- 85 - orders by Minister to take action for amelioration of adverse effects
- 87 - compensation for damage from spills (ECC)

Drainage Act (OMAF)

Section

- 83 - prohibits the discharge of polluting substances into drains

NOTE:

FLOW CHART IS PREPARED FOR PURPOSES OF CONVENIENCE ONLY. FOR ACCURATE ACTION, PLEASE REFER TO THE TEXT.

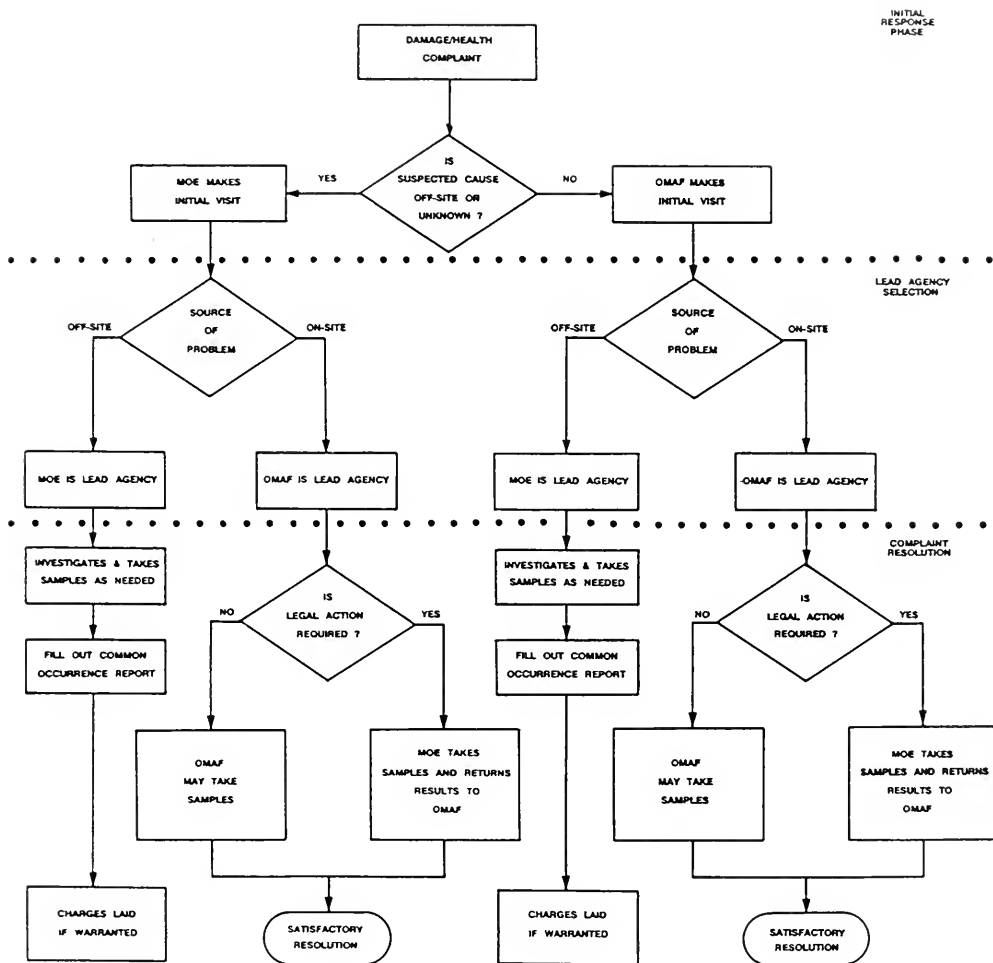


FIGURE 3.1 PROTOCOL FOR HANDLING PESTICIDE INCIDENTS INVOLVING CROP OR VEGETATION DAMAGE AND LIVESTOCK OR HUMAN HEALTH HAZARDS

REFERENCES

Ministry of Agriculture and Food, 1987. Guide to Chemical Weed Control, Publication 75.

Ministry of the Environment. Pollution Abatement Program: Development, Compliance and Enforcement - MOE Policy No. 05-02

Ministry of the Environment. Uniform Environmental Enforcement - MOE Policy No. 05-05

OMAF FACTSHEETS

Frank, R., 1986. Pesticide Contamination of Farm Water Supplies - Recommendations on Avoidance and Cleanup, Agdex 607.

Frank, R., 1987. Guide to Handling and Applying Herbicide to Protect Water Supplies and Reduce Personal Exposure, Agdex 607.

Frank, R., Chisholm, A.R., 1986. Storing Pesticides on the Farm, Agdex 607.

Frank, R., Ripley, B.D., 1988. Management of Pesticides on the Farm, Agdex 607.

Frank, R., Winfield, R.G., 1987. Pesticide Container Rinsing, Agdex 607.

Frank, R., Wilson, K., 1983. Protective Clothing When Using Pesticides Outdoors, Agdex 607.

Hikichi, A., Fisher, R.W., & Menzies, D.R., 1976. Pesticide Drift, Agdex 607.

McEwen, F.L., Frank, R., 1983. Farm Storage of Pesticides, Agdex 607.

LEGISLATION AND RESPONSIBLE AGENCY

Drainage Act, R.S.O. 1980, Chapter 126 as amended.
(Ministry of Agriculture and Food)

Environmental Protection Act, R.S.O. 1980, Chapter 141 as amended.
(Ministry of the Environment)

Ontario Water Resources Act, R.S.O. 1980, Chapter 361 as amended.
(Ministry of the Environment)

Pest Control Products Act, 1982, c. P-10 as amended.
(Agriculture Canada)

Pesticides Act, R.S.O. 1980, Chapter 376 as amended.
(Ministry of the Environment)

APPENDIX 3.1


 Ministry
of the
Environment

Ontario

Occurrence Report

- ☐ Initial Report - Complete all applicable sections
- ☐ Supplemental Report - Complete all shaded and other appropriate sections.

Received by		Page 1 of
Reg. No.	S.A.C. No.	I.E.B. No.

2 Type of Occurrence

<input type="checkbox"/> Occurrence Code	Sub. Cat. Code	Occurrence Date Y Y M M D D	Time (24 Hr Clock)
Reported by (Name/Organization)		Date Reported Y Y M M D D	Time (24 Hr Clock)
Tel. No.	Alternate Tel. No.	Date MOE at Scene Y Y M M D D	Time (24 Hr Clock)
Address		MOE Officer Assigned	
Postal Code			

3 Location of Occurrence

4 Source

MOE Region Code	MOE Dist. Code	Municipal Code	Source Code	Sector Code	SIC Code
-----------------	----------------	----------------	-------------	-------------	----------

5 Brief Summary (Attachments accompanying this report: ☐ No If ☐ Yes, number and list them in this Section)

Multiple reports on single incident: ☐ No

If ☐ Yes, list related Occurrence Report numbers here.>>

Continued in Section 12 ☐ No ☐ Yes

6 Follow-up Action:

☐ Abatement ☐ I.E.B.

No Further Action by:	<input type="checkbox"/> Abatement	<input type="checkbox"/> IEB	<input type="checkbox"/> File Closed	Suspected Violation Code	I.E.B. Investigator Assigned
7 Report Prepared by:	Date Y Y M M D D	B.F. Date Y Y M M D D	Person-Days	MBR	Function
District Officer	Date Y Y M M D D	IEB Reviewing Officer	Date Y Y M M D D		

Specify Number(s), indicating the routing of the original ☐ ☐ ☐ ☐

Specify Number(s), indicating the distribution of the copies ☐ ☐ ☐ ☐

 Continued on
REVERSE side
of form

- ☐ 1 Investigator or Environmental Officer ☐ 2 District Officer/File ☐ 3 S.A.C. (all spills) ☐ No
- ☐ 4 Reg. Dir/ _____ Mgr. ☐ 5 I.E.B. Reg. Supervisor ☐ 6 I.E.B. Head Office/File ☐ Yes



Ministry
of the
Environment
Ontario

This Continuation Page can be used for both INITIAL and SUPPLEMENTAL REPORTS and is for the continuation of Sections 5 and 12 which must be completed before using this page

Occurrence Report Continuation Page

Complete appropriate boxes in this section if this page is used			
Reg. No.	S.A.C. No.	I.E.B. No.	Page of

Continued on
CONTINUATION
PAGE

☐ No

☐ Yes

APPENDIX 3.2

UNIFORM ENVIRONMENTAL ENFORCEMENT
(MOE POLICY NO. 05-05)POINT OF CONTACT

Director
Investigations and Enforcement Branch

LEGISLATIVE AUTHORITY

Environmental Assessment Act
Environmental Protection Act
Ontario Water Resources Act
Pesticides Act
Provincial Offences Act

STATEMENT OF PRINCIPLES

This policy describes the principles and procedures used by the Ministry to deliver a uniform approach to enforcing its Acts and Regulations. The Ministry will use an appropriate mix of legal remedies to ensure compliance with environmental law. The principles and procedures described below are to be applied to the public and private sectors.

DEFINITIONSControl Documents

A control document is any written instrument which carries statutory authority. These include Minister's reports, licences, permits, certificates of approval, control orders, orders, requirements and directions and program approvals.

Occurrence Report

A written document by which environmental incidents are reported and recommendations for action identified.

1. Principles for Uniform
Environmental
Enforcement

1.1 Prosecution
Principles

The Ministry will follow established principles of prosecution which include:

- a) Prosecution will be the result of an informed judgement which includes the proper exercise of prosecutorial discretion;
- b) Equal protection and benefit before and under the law;
- c) Prosecution will be administered in an even-handed, non-discriminatory and fair manner which advances and protects the public interest;
- d) Where there is sufficient evidence to prove all the essential elements of the offence but the proper exercise of prosecutorial discretion dictates no prosecution, the reasons for that decision shall be recorded in writing in the confidential investigative file;
- e) The penalty requested by the Crown Prosecutor upon conviction will be commensurate with the seriousness of the offence, and the circumstances of the offender including the co-operation of the offender.

1.2 Considerations in
The Application of
Prosecutorial
Discretion

For the purpose of section 1.1 a proper exercise of the principles of prosecutorial discretion shall include consideration of:

- a) whether the violation poses a significant risk or adverse effect to humans or the environment;
- b) whether pollution from the source is a serious obstacle to achievement of Ministry air quality or water quality objectives;
- c) any unsatisfactory history of pollution control or negative attitude as indicated by the level of effort;
- d) any unsatisfactory record of compliance with Ministry orders;
- e) whether the violation seems deliberate in nature or, if not deliberate, the degree of negligence involved;
- f) whether there has been concealment of information;
- g) whether the violation was repeated or a warning was disregarded;
- h) whether the prosecution is likely to have a deterrent effect on the sector generally or on others;
- i) whether the credibility of the regulatory process with those regulated and the public requires prosecution; or

- j) whether failure to prosecute would tend to bring the law into disrepute.

A minor offence may be prosecuted by way of ticket procedures.

1.3 Control Documents

The Ministry will use control documents as a means of limiting, eliminating and controlling pollution in Ontario. Any control document issued by the Ministry will be binding and enforced.

1.4 Preparation of Control Documents

Subject to the legislation and to other policies, control documents should be prepared such that they:

- a) require intermediate steps in a control order to be completed in a timely and regular fashion;
- b) require the installation of the pollution control equipment by the date specified;
- c) require that pollution control equipment, once installed, is properly maintained and operated;
- d) require that pollution control equipment be upgraded or modified as required to prevent occurrences;
- e) specify the emission, discharge, and monitoring requirements that must be met;
- f) include procedures to be followed during start-up, shutdown and breakdown, maintenance and decommissioning periods;

- g) require that once equipment is installed, the person responsible so certifies in writing; and
- h) require that once installed equipment is operating as required, the person responsible so certifies in writing.

1.5 Responsibility for Emissions and Discharges

The operator of any facility is at all times including during start-up, shutdown, breakdown, maintenance or decommissioning responsible to control emissions and discharges.

1.6 Changes in Status

The Ministry will ensure that conditions be included in all control documents requiring that the person subject to them report any significant changes that are made in the operation of the facility, emissions or discharges, or the legal status of the operation.

1.7 Requests for Abatement

- a) Where the Ministry makes a written request for action to reduce, prevent or eliminate pollution, a reasonable time to comply will be specified;
- b) In cases where compliance with written requests is not forthcoming within 180 days maximum, the Director and the Investigations and Enforcement Branch will apply formal sanctions against the polluter. This does not prevent the application of sanctions in a shorter time period. Sanctions may include additional terms or conditions on an approval or control order, or prosecution.

- c) Policy 05-02 Pollution Abatement Program: Development, Compliance and Enforcement describes the Ministry's abatement program.

2. Procedures for the Implementation of Uniform Environmental Enforcement

2.1 Monitoring

Control documents will be reviewed regularly by the Operations Division to ensure compliance based on regular inspection, testing and monitoring consistent with administrative priorities and the nature of the facility.

2.2 Evaluation Procedures

The Director of the Environmental Approvals and Land Use Planning Branch will develop procedures for evaluation of applications for approval and apply them when considering applications.

2.3 Control Document Update

A periodic review should be undertaken by the Regional Director of control documents issued by the Ministry to ensure that they are current.

2.4 Occurrence Reports

Ministry staff will be required to document in an Occurrence Report any observed or reported violations. Also any action requested by the Ministry to address an occurrence should be documented in writing.

2.5 Examination of Financial Capability

Policy 02-01 Guidelines for an Economic Analysis of Private Sector Pollution Abatement and Environmental Protection Measures describes the content and application of economics and financial analyses to pollution abatement activities.

APPENDIX 3.3

COLLECTION AND SUBMISSION OF SAMPLES TO
PESTICIDE LABORATORY
(AGRICULTURAL LABORATORY SERVICES BRANCH, OMAF)

1. PESTICIDE LABORATORY SUBMISSION FORM

The purpose of this form is:

- (a) to identify sample(s);
- (b) to provide background information that is presented on final report;
- (c) to provide the analyst with as much information as necessary to conduct proper analysis;
- (d) to permanently record the sample(s) for future reference, i.e., follow-up calls, court cases, paper writing, etc.

All samples submitted to the laboratory for pesticide residue analysis must be accompanied by a submission form in which all applicable parts have been completed.



FORM MUST BE COMPLETED IN FULL

Report Number	Year	Date Received	Received by
---------------	------	---------------	-------------

1	Investigation Name		
	Sampled By:	Date:	Transported By:

2	Sender's Name		Analysis Requested
	Sender's Address:		
	City/Town:	Postal Code:	
	Ministry	No. of Samples:	
	Copies To:		

3	Submission Information:		Follow-up <input type="checkbox"/>	Report Number:
	a) Initial Submission <input type="checkbox"/>			
	b) Source of Sample:		c) Source of Damage:	
	d) Type of Application:		e) Description of Damage:	

4	Location of Damage - Site:			
	Owner:		Address:	
	County/District:	Township:	Lot:	Conc.:

5	Sample Description: - give complete description of sample (use back if necessary) and include map.
---	--

Laboratory Sample No.	Sender's No.	Description (Sample Type & Location)
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	

6	Comments (History + Priority)

GUIDE TO COMPLETING PESTICIDE LABORATORY SUBMISSION FORM

REPORT NO.

YEAR

DATE RECEIVED

RECEIVED BY

This area is reserved for
completion by the
laboratory.

1. and 2. Identify the investigator by name. The person taking the samples must be identified. If the samples are not transported by the sampler, please specify the person. The dates of sampling and transportation must be completed. The full mailing address of the sender must be completed. If copies of the analytical report are to be sent out, complete the appropriate section. The number of samples submitted and the analysis requested are to be filled in.
3. (a) Indicate if this is a new submission or a follow-up. If a follow-up submission, specify previous laboratory report numbers.
3. (b) Areas (b) to (e) are to be used for a concise description of the relevant circumstances of the investigation.
3. (b) The source of the sample describes the location and particulars of the sample in general terms.
3. (c) The source of the damage, if it can be identified, must be listed, e.g. suspected roadside drift. The type of investigation will depend on the kind of situation encountered and the following categories should be treated slightly differently:
 - (1) Injury inside a greenhouse
 - (2) Injury to a farm crop
 - (3) Injury to ornamentals on a home property
 - (4) Contamination of a water supply, etc.

In the above injury cases, the following possible sources should be considered carefully and enquiries made to see if they may be involved in the case:

Water Supply - Wells or water supplies can become accidentally or deliberately contaminated with herbicides which can cause injury to greenhouse plants. Planting water used for transplanted crops can likewise be contaminated.

Fertilizer - Fertilizer can become contaminated with herbicide at the point of manufacture, during distribution or in farm storage.

Sprays - Occasionally sprays have been found to be contaminated with other compounds that may be undesirable or injurious (e.g. aldrin has been found in dichlorvos).

Soils - Fresh soil is often put into greenhouses. Such soils can be contaminated with a herbicide and cause plant injury.

Contaminated fertilizer can often be detected in soil around damaged plants. Previous herbicide use may leave residues that affect a following susceptible crop, e.g. atrazine-treated soil from a corn field.

Other Plant Species - When drift occurs from the place of application to a crop that is injured, usually other plant species in the area are injured and should be sampled. If no affected plants can be found, resistant species, while not showing injury, may carry residues of the herbicide.

Sprayed Area - A sample of sprayed vegetation from the site where herbicide spraying has been known to occur would help confirm that crop injury may be typical of the herbicide used.

Property Spraying - Look for signs or symptoms or spraying of the property involved in the investigation.

Greenhouse:

Water supply, fertilizer and soil are all important items to be considered in the investigation. Occasionally flats, pots and wooden benches can become contaminated and should also be considered. Vapours from herbicides used near the greenhouse can sometimes become captured in the greenhouse and cause damage even months after application. Collection of samples from suspected outdoor sources should be made.

Farm Crops:

Depending on the age of the crop when injury is first observed, one can select or eliminate factors such as the contamination of planting water, fertilizer, and soil. If a spray applied to neighbours' crops is suspected, procure a sample of it so that the residue and identity of the compound can be compared to the crop injured and the treated crop. Synergistic effects must be considered where a non-injurious residue in the soil becomes potentiated by the use of a second herbicide.

Home Properties:

Many of the remarks given above also refer to this type of investigation. It must be further considered that a herbicide used by a property owner may be harmless on the plants sprayed, but vapours may drift and affect other species that are susceptible. Sampling from the damaged area and the area from which spray drift is suspected is important in identification of the true source.

Water Supplies:

Many herbicides are not soluble in water or are of very low solubility. Besides collecting a water sample, it is important to collect the layer of sediment that is in contact with the water.

3. (d) The type of application is very important to the analyst, i.e. is it a check for residues, drift, direct application, fish kill, spill, fire, health problem, concentrated sample, etc. Also consider the type of equipment such as boom sprayer, airblast, aircraft, handgun, hand sprayer, etc.

3. (e) A brief description of the type of damage or a description of the site is important.
4. Location of the damaged or contaminated area must be specifically identified.
5. If it is a legal (MOE) sample (see Section 2), the number must be removed from the end of the seal for each sample and applied to the form. The type of sample, and its location on the map, must be identified.
6. Previous spray history or other pesticides that may have been applied or involved should be indicated; priority and reason for analysis. High priority would include human health implications or court cases, while low priority might involve routine monitoring. It is also important to indicate whether the results desired are for presence or absence, the actual level or both.

GENERAL COMMENTS

Since the laboratory can neither afford nor justify the time required to make an exhaustive analysis of every sample for many pesticide residues, it is essential that requests be confined to examinations which might be necessary and produce relevant information.

In addition to the proper selection of samples to be analyzed, particular care must be taken to see that samples are properly identified, packaged and that control samples are taken. Failure to do this may result in the loss or damage of samples so that no analysis is made, or results in its inadmissibility as evidence in court.

Consider the following comments:

- (1) If you are not sure about how or what samples to take, contact the laboratory or other appropriate resource personnel. In situations where you are not sure of the analysis to be requested, take plenty of samples. It is easy for the laboratory to sub-sample your sample and do the various analyses. Do not submit "junk" samples to the laboratory; don't submit samples for their own sake, and for no particular reason.
- (2) Unless you specify otherwise, your sample will be analyzed by the laboratory in the state in which it is submitted. If you want your sample separated by the laboratory, specify the components, e.g. whole fish or head, gut, fillet, roots only, edible portion.

- (3) Avoid cross contamination of samples. Do not contaminate your samples as you sample. Take samples from the least contaminated area first and progress to the most contaminated areas. In transit, secure all samples since breakage of a container in transit could result in contamination of the other samples, other goods or the laboratory.
- (4) Take a control sample whenever possible.

The following form may be used when only a soil sample is taken for analysis.



AGRICULTURAL LABORATORY SERVICES
PESTICIDE RESIDUE SECTION
Building #43, McGilvray St.
University of Guelph
Guelph, Ontario, N1G 2W1
Tel: (519) 823-8800 ext. 4829

report number	date received
---------------	---------------

Y Y	M M	D D
-----	-----	-----

Please send a copy to:

OWNER'S NAME

NAME _____

ADDRESS _____

ADDRESS _____

POSTAL CODE _____ County _____ POSTAL CODE _____

Sampling Date	Initial submission	Follow-up	Report No.
---------------	--------------------	-----------	------------

Previous History

[illegible]

General Comments (Past history, problems, planting intentions, questions).

2. SUBMISSION OF LEGAL SAMPLES

SAMPLE LABELLING

The following seal is to be used to seal all legal samples for pesticide residue analysis. It is made of paper with a special glue backing, and once applied to any container, it cannot be removed without destroying it. If the seal is applied to a plastic bag and there is fear that it may be torn in transit, the person taking the sample need only put a piece of Scotch Tape over the seal. It is possible to secure all types of containers with this seal. Moreover, it carries the same non-repeating number twice. At the time of fixing to the sample container, one number is removed and placed on the pesticide laboratory submission form (Sender's Number). This will cross-reference the sample to the submission form.

Example:

10989



Ontario

Ministry
of the
EnvironmentPesticides
Control

1754

Investigation Name: _____

Sampled By: _____

Transported By: _____

Date: _____

Date: _____

10989

3. WARNING LABEL FOR CONCENTRATED SAMPLES

A red sticker is used to identify a sample which may be contaminated with a concentrated pesticide; or where the sample itself is a concentrated pesticide. In other words, these are not routine samples. The label will forewarn the laboratory that it is working with a sample which involved a concentrated pesticide or formulation.

Example:



4. GUIDELINES FOR COLLECTING SAMPLES

INTRODUCTION

Sample collection is the first and commonly most critical stage in the step-by-step procedure used to determine a substance or group of substances in the environment or in food commodities. The results are only as valid as the care and precision taken during each step of the collection and analytical procedure. Incorrect sampling, packaging, labeling and storage of samples are most often major sources of error. It is very important that errors are kept to a minimum so that the results are meaningful. Remember, the more care taken, the more reliable the results will be.

From the standpoint of data interpretation, it is normally assumed that a representative sample has been taken. When taking reliable samples, bear in mind the following kinds of variables:

- (a) the type of material may vary from a dry coarse grass to the internal organs of a hog.
- (b) the unit size of the sample may vary from a watermelon to a few milliliters of blood.
- (c) the nature and stability of the raw material may range from a relatively non-perishable soil sample to a highly perishable brain of a bird.
- (d) the pesticide residue may result from a relatively uniform application by a ground machine or may be the result of water contamination carried several miles from the site of use.
- (e) the stability of the chemical in the material may vary from a long-residual chlorinated hydrocarbon insecticide to a rapidly metabolized organophosphorus insecticide.

If the sample is not, in fact, representative, then this should be noted to avoid erroneous data interpretation. Similarly, once the sample has been collected, improper use of preservation techniques to stabilize the sample, and delay in transportation, may lead to questionable results.

In general, the sampler's aim must be to collect a representative sample from a known location and transfer it to the laboratory with the least possible change in chemical composition of the parameter of interest. It is of little value to make an accurate analysis of an incorrectly collected sample.

IT CANNOT BE EMPHASIZED TOO STRONGLY THAT THE
SAMPLER PLAYS A KEY ROLE IN ENSURING THAT THE
DATA OBTAINED REFLECTS THE FIELD SITUATION
BEING ASSESSED.

METHOD OF TAKING A REPRESENTATIVE SAMPLE

Much thought, care and ingenuity may be needed to acquire a representative sample for residue analysis. It is suggested that in most cases a gross sample is collected from which a composite sample be taken. This is an ideal method of sampling and should be applied where it is practical. It is especially applicable to sampling from a mechanical harvester, a mill, a chopper or bulk tanker.

(i) Gross sample:

It is not practical to reap a whole crop, or deliver a herd of animals; therefore, a means must be devised for selecting at random a gross or field sample. The collection of the gross sample can be done randomly, systematically, or selectively from a predetermined number of "stations". Usually 10 stations or sites will be adequate for a gross sample. It is ridiculous to submit a single plant or to collect a large sample from one "station". The gross samples are taken to even out the variations of pesticide applications, e.g., overlapping, skipping, stoppages, etc., and hence they should be well distributed throughout the item being sampled.

(ii) Composite Samples:

The gross sample collected from several "stations" should be thoroughly mixed so that a composite sub-sample representative of the gross sample can be delivered to the Pesticide Laboratory. Most of the gross sample will be discarded in the process. The composite sample will vary in size and weight according to the requirements for analysis.

SAMPLING GUIDELINES

1. Take a representative sample. Samples should be selected so that the residue results will allow the field staff to make a decision regarding what caused the problem. For example, samples may represent no damage, slight damage and dead vegetation; field sprayed, at fence line and in nearby field; soil, root and above ground parts.
2. Take an adequate size sample so analysis can be performed.
3. Avoid contamination. Sample from least damaged or lowest concentration areas first and progress to most damage or highest concentration areas. If a control sample is taken (desirable), sample this first. When in doubt, clean sampling utensils between samples.
4. Place samples in clean glass containers or polyethylene bags. Soil samples may be placed in sample boxes. Ensure that samples do not contaminate one another during transit. Close containers tightly; aluminum foil should be used to line lids. Avoid using "plastic" containers.
5. Label all samples clearly and correctly. The sample description or number should appear on sample as on submission sheet.
6. Provide as much information as possible to laboratory. Maps and photographs are helpful. Possible pesticides causing the damage should be indicated.
7. While preservatives are usually required, samples should be kept cool or frozen prior to delivery to the laboratory. Pesticides may breakdown between the field and analysis and hence they should be delivered to the laboratory as soon as possible after sampling.

SAMPLING FOR LEGAL SAMPLES

Sampling in connection with legal action naturally requires special care due to the influence this sampling may have on the outcome of the case. Court cases are usually initiated to determine legal responsibility for reported pollution events (stream, well contamination, vegetation or plant damage, etc.) and sampling must be conducted with this in mind.

MOE staff are referred to the Province of Ontario, Pesticide Investigation - Techniques Source Book, 1984 for details on sampling, sample submission, chain of custody and legal considerations for an investigation.

SAMPLE SIZE

Provide sufficient sample for the requested analysis. In general, the following is required per analysis

water	1L
soil	100g
plant	200g

Details on sample size and collecting agricultural products for analysis are given in AGDEX No. 608-07 Submission of Specimens for Pesticide Analysis.

When in doubt, contact the laboratory for assistance.

SAMPLING PROCEDURES

Information on sampling may be obtained from the laboratory. Good reference material includes:

1. AGDEX No. 608-07 Submission of Specimens for Pesticide Analysis.
2. Province of Ontario, Pesticide Investigation - Techniques Source Book, 1984.
3. Guidelines for Sampling and Transporting Samples for Pesticide Residue Analysis 1983, FICP and EUCPA, Agriculture Canada, London, Ontario.
4. Sampling Manual for Pesticide Residues, Alberta Environment.
5. A guide to the Collection and Submission of Samples for Laboratory Analysis, MOE, 1985.

APPENDIX 3.4

POLLUTION ABATEMENT PROGRAM:
DEVELOPMENT, COMPLIANCE AND ENFORCEMENT
(MOE POLICY NO. 05-02)

POINT OF CONTACT

Operations Coordinator
Operations Division

LEGISLATIVE AUTHORITY

the Environmental Protection Act
the Ontario Water Resources Act
the Pesticides Act

STATEMENT OF PRINCIPLES

This policy describes the Ministry's pollution abatement program. The policy relates to all sources of pollution requiring the design, approval, delivery and installation of facilities or operational improvement(s). Additional requirements relating to particular sources of pollution, such as Policy 05-03, will be found in other policy statements.

DEFINITIONSProgram Approval

A "Program Approval" refers to a document describing and approving a schedule of abatement activity submitted by a polluter to the Ministry and approved.

Legislative Authority:
The Environmental Protection Act Sections 9, 10, 11, 18.

Director Issued Order

A "Director Issued Order" refers to an order or requirement issued by the Ministry which is not specifically covered by other definitions. A Director is any staff person appointed by the Minister for the purposes of the Act.

Legislative Authority:
The Environmental Protection Act Sections 7, 18, 19, 42, 57, 68, 69.

The Ontario Water Resources Act Sections 17, 23, 24, 43, 51, 61.

The Pesticides Act Sections 11, 21, 24.

Control Order

A "Control Order" refers to a requirement by the Ministry for specified abatement actions to be accomplished under a given schedule. Such Orders are generally issued as a result of a contravention of Section 13 of the Environmental Protection Act or a contravention of a standard or regulation. Control Orders include Requirements and Directions issued under The Ontario Water Resources Act.

Legislative Authority:
The Environmental Protection Act Sections 6, 14, 113, 114, 115, 116.

The Ontario Water Resources Act Sections 20, 23, 24, 32, 51, 52, 61.

The Pesticides Act Sections 13, 21, 22, 23, 24.

Provincial Officer's Requirement

A "Provincial Officer's Requirement" refers to the authority of a Provincial Officer to survey, collect information and report on contaminant sources. A Provincial Officer is any person designated by the Minister for the purpose of the Act. Such requirements also include the requirement of an employee or agent of the Minister having a similar authority under The Ontario Water Resources Act.

Legislative Authority:
The Environmental Protection
Act Sections 127, 128, 129,
130.

The Ontario Water Resources
Act Section 10.

The Pesticides Act Section 17.

Stop
Order

A "Stop Order" is a
requirement by the Ministry
for an immediate stop to the
addition, discharge or
emission of a contaminant
either permanently or for a
specified period. Stop Orders
include Emergency Orders
issued under The Ontario Water
Resources Act.

Legislative Authority:
The Environmental Protection
Act Sections 7, 12, 112, 117,
118, 119.

The Ontario Water Resources
Act Section 62.

The Pesticides Act Section 20.

Notice
of Intent

A "Notice of Intent" is a
notice which is served to
provide written notification
of a Director's intention to
issue a Control Order, the
reasons for the order and a
copy of the report explaining
the reasons. This notice must
be served at least 15 days
prior to the issuance of a
Control Order.

Legislative Authority:
The Environmental Protection
Act Section 116.

The Ontario Water Resources
Act Section 61.

The Pesticides Act Section 13.

1. Abatement Program
Development Process

1.1 Problem
Definition

The Ministry will begin the development of a pollution abatement program by defining the environmental problem(s).

1.2 Report
Preparation

Where there is a severe, long-standing problem having a large degree of environmental impact, the Ministry will ask the company or person responsible for the problem to prepare a report outlining the technical options available for correcting the defined problem. In preparing this report, the company should address factors such as technical options, capital investments required, operating costs, economic feasibility, socio-economic implications and environmental benefits.

1.3 Commencement
of Abatement
Discussions

Once the report prepared under 1.2 is complete, specific abatement discussions with the polluter will commence. Available financial assistance programs will be thoroughly reviewed and discussed during abatement discussions.

1.4 Request for
a Program
Approval

Where the polluter agrees to prepare the report and wishes to enter into a Program Approval the Ministry will allow its use only when the following conditions are met:

- (a) The polluter has demonstrated good faith through responsible timely pollution abatement in the past, or
- (b) The Ministry staff are confident of the polluter's intent and ability to implement a Program Approval.

1.5 Program
Approval
Components

The following items will be contained in a Program Approval:

- (a) A clear commitment by the polluter subject only to a "force majeure" clause acceptable to the Director;
- (b) Signatures of Senior Officers of the polluting firm under corporate seal;
- (c) Assurance that the polluter has the financial capability and has earmarked these funds;
- (d) Staged dates for each item;
- (e) A description of the pollution problem and how the polluter will resolve this by the program;
- (f) A statement that the polluter has investigated the options to its satisfaction and agrees that the proposed remedial project is technically feasible;
- (g) A commitment to supply the Ministry with copies of documents (i.e. purchase orders, designs, contracts with consultants or contractors) as evidence of compliance with the various stages of the abatement program;

- (h) A statement that the Program Approval is limited in its application to those parts of the plant or those processes or those contaminants specifically referred to in the Program Approval;
- (i) A statement that time is of the essence to achieve the desired results;
- (j) A statement that failure to meet any part constitutes failure to comply with the whole Program Approval;
- (k) An agreement that the Program Approval be made public and, if requested by the Ministry, a willingness to participate in the public process respecting the proposed Program Approval.

1.6 Alternative
Program
Measures

If an abatement program cannot be assured after a reasonable period of discussion with the polluter not exceeding six months then alternative measures will be used to ensure abatement:

1.6.1 Orders
and
Requirements

Director Issued Orders, Control Orders, or Provincial Officer's Requirements may be employed by the Ministry to bring about pollution abatement.

1.6.2 Stop
Orders

Where there is an immediate danger to human life and health or to property, a Director may issue a Stop Order directed to the person responsible for the source of the contaminant. In choosing this course of action, a Director will seek legal

advice and obtain the consent of the Assistant Deputy Minister.

1.6.3
Prosecution

Directors may recommend prosecution as follows:

- (a) In any case where it would be appropriate and just to do so, taking into account all the circumstances, or
- (b) In place of, to supplement or to enforce Orders where, in their opinion, abatement would be successfully achieved more quickly.

1.6.4
Voluntary
Abatement

The normal inspection and complaint investigation activities, followed by voluntary abatement actions, will continue and are not restricted by any of the foregoing points.

1.7 Report and
Review Made
Public

Where the company or owner has prepared the report referred to in 1.2, the Ministry will prepare a written review of it, and both reports will be made public, subject to the confidentiality of proprietary information. Both reports will be distributed to local MPP's and Municipal Officials.

1.8 Refusal to
Prepare Report

Where the company or person refuses to prepare the report referred to in 1.2, the Ministry will prepare the report, and both the report and any response by the company will be made public. Both reports will be distributed to local MPP's and Municipal Officials.

1.9 Public
Consultation

After making the company or owner's report and the Ministry's review public as in 1.7, or after making the

Ministry-prepared report public as in 1.8, the Director will hold a public information session for significant pollution problems, or for pollution problems that generate high public interest. Local MPP's and Municipal Officials will be notified prior to the public information session.

1.9.1
Exceptions

Public information sessions will not be held for the following:

- (a) Orders under Part VII of the Environmental Protection Act;
- (b) Provincial Officer's Requirements;
- (c) Stop or Emergency Orders;
- (d) Prosecutions;
- (e) Orders for minor pollution problems.

1.10 Receipt of
Public's Comments

After making the report public as in 1.9, or after holding a public information session, the Director will receive written comments from the public for a period of thirty days.

1.11 Director's
Recommendation

After receiving public comment, the Director will take a course of action. Local MPP's and Municipal Officials will be notified regarding the Director's choice of action.

1.11.1
No Significant
Alternative
Proposals

If no significant alternative proposals are received in writing by the Director within thirty days of making his decision public, then the Director will sign the Program Approval or issue a Notice of Intent.

- | | |
|---|--|
| 1.11.2
<u>Significant
Alternative
Proposal</u> | If a significant alternative proposal is received, then the Director will conduct a second public information session. |
| 1.12 <u>Director's
Decision</u> | If in the opinion of the Director a significant change in the abatement program becomes necessary as a result of step 1.11.2, then he shall proceed to renegotiate the program with the polluter. |
| 1.13 <u>Revised
Program</u> | Once a revised abatement program is produced, steps 1.5 through 1.12 shall be repeated by the Director. |
| 1.14 <u>Publication and
Distribution</u> | Information regarding the following items will be available as specified: |
| 1.14.1
<u>Available at
Regional,
District and
Head Offices</u> | The Notice of Intent, any Program Approval, the Director's recommendation under 1.11, and the Director's decision under 1.12 will be available at Ministry Regional, District, and Head Offices. |
| 1.14.2
<u>Available at
Regional
Office</u> | Written comment from the public, significant alternative proposals received under 1.11.2, and any revised abatement program will be available at the Regional Office. |
| 1.14.3
<u>Notice of
Intent or
Program Approval</u> | The Notice of Intent or the Program Approval will be distributed to local MPP's and Municipal Officials. |
| 2. <u>Abatement Program
Administration</u> | All activities related to Program Approvals, Director-issued Orders, Control Orders, and Stop Orders will be carried out on a project management basis whereby a specified staff person is assigned the responsibility for management of abatement activities. |

2.1 Delays Due
to Financial
Constraints

Any significant proposed delays in the implementation of an abatement program due to financial constraints will results in steps 1.5 to 1.12 being taken.

3. Abatement Program
Compliance

3.1 Monitoring

To ensure compliance with Program Approvals and Orders the following activities will be undertaken:

- (a) The polluter will monitor emissions or discharges and the ambient quality of air and water where specifically required by the Ministry;
- (b) The above data will be reported to the Ministry and will be available for review by the public at the local Ministry office;
- (c) The polluter will submit regular status report(s) on its compliance with the Order or Program Approval;
- (d) These reports (with the exception of proprietary information identified by the polluter and agreed to by the Ministry) will be available for review by the public at the local Ministry office;
- (e) The Ministry will audit Items (a) and (c) above, and carry out any additional tests that may be required;
- (f) The information provided by the polluter may be used for enforcement purposes.

3.2 Enforcement Action

3.2.1 General

Where a polluter is not presently under a Control Order or Program Approval, and there is a potential hazard to the environment, or where there is a discharge of a contaminant to the natural environment, the Ministry may prosecute, seek an injunction, or issue a Program Approval, Control Order, or Stop Order as conditions warrant.

3.2.2 Where a Polluter is Under a Program Approval or Order

- (a) Where a polluter is under a Program Approval or Order and has not essentially complied with the intent of any item in the Order or Program Approval, then the Ministry will prosecute.
- (b) Where a polluter is under a Program Approval or Order and is complying fully with its terms, the Ministry will not prosecute in respect of those items covered by the Order or Program Approval.
- (c) Where a polluter is under an Order or Program Approval and is in violation of items not covered by a Program Approval or Order, and where conditions warrant, the Ministry may prosecute.

3.2.3 Prosecution by Other Parties

Where the Ministry has decided not to prosecute a polluter, the Ministry will make information regarding the pollution available to other parties upon request, subject to constraints imposed by legislation.

3.3 Amendments or Extensions

3.3.1 Increased Time or Loading

If the polluter wishes to significantly extend the time allowed in the Order or Program Approval or increase the loading above that specified, such amendments will be subject to the process described previously by items 1.5 to 1.12.

3.3.2 Shorter Time and Loading

If the polluter proposes a change with the same or shorter time frame, or the same or lesser loading, the Order or Program Approval will be amended by the Ministry and distributed to local MPP's and Municipal Officials.

3.3.3 Short Term Extensions

When an extension is requested because of matters beyond the control of the polluter, the Ministry may extend an Order or Program Approval on a short term basis and it will be distributed to local MPP's and Municipal Officials.

4. PROTOCOL FOR HANDLING WELL WATER QUALITY INCIDENTS

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4. PROTOCOL FOR HANDLING WELL WATER QUALITY INCIDENTS

4.1 APPLICABILITY

This protocol provides guidance on the procedures to be followed in the address of a reported incident or complaint regarding well water that is suspected of being impaired.

4.2 BACKGROUND

A safe drinking water supply is essential for sustained health of human and livestock populations. In rural Ontario the major source of drinking water is ground water which is obtained from wells or springs.

The Province of Ontario has jurisdiction over water supplies and, through the Ontario Water Resources Act, governs domestic and communal water systems. The quality of privately owned water supplies serving five or fewer private residents are the concern of the owner(s). The local health departments have the responsibility to prevent or decrease health hazards.

The Ministry of the Environment has set objectives for the quality of drinking water (see "Ontario Drinking Water Objectives", 1983). These objectives set maximum acceptable levels of health related parameters, such as bacteria or toxic chemical levels, as well as desirable levels for aesthetic parameters such as colour, temperature and non-toxic chemicals.

It is the goal of the Province "to protect the quality of ground water for the greatest number of beneficial uses." In the majority of cases human consumption will be the most important use of water to be protected, but agricultural use, use by aquatic life as well as other uses are important. It is also the policy of the Province that all reasonable measures be taken to reduce or prevent the contamination of ground water (Water Management: Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment, 1984).

Several statutes relate to the use and protection of ground water from contamination. The Ontario Water Resources Act prohibits the discharge of pollutants into surface or ground waters, sets controls on communal water works and sewage works, and regulates the construction of wells. The Environmental Protection Act provides the authority to regulate the discharge of contaminants to the natural environment, regulation of waste management systems and disposal sites, the regulation of generally private sewage systems not covered under the Ontario Water Resources Act, and the control of spills. The Pesticides Act controls the

handling and use of pesticides. These three statutes are administered by MOE. The Gasoline Handling Act, administered by the Ministry of Consumer and Commercial Relations (MCCR), prohibits the use of leaky petroleum storage tanks and regulates the detection and reporting of petroleum product spills and leaks. The Ministry of Natural Resources (MNR) administers the Petroleum Resources Act, which sets controls on oil and gas exploration and production activities, and regulates the disposal of brine produced in association with oil and gas.

The Ontario Health Protection and Promotion Act, administered by the Ministry of Health (MOH), sets out the responsibilities of the local health agency including health inspection of water supplies.

Information on water treatment systems and the proper construction of wells is available from the offices of MOE, OMAF, and local Health Units (see References).

4.3 DEFINITIONS

Off-site	- not on the property of the well owner
On-site	- on the property of the well owner
Owner	- refers to well owner
Well	- a ground water source including a dug, point, bored or drilled well or a spring
MOE	
Contact	- Groundwater Evaluator in the regions
OMAF	
Contact	- OMAF County offices
Health	
Contact	- Local Health Unit
FPAC	- Farm Pollution Advisory Committee

4.4 PROTOCOL

1. A call or report of an incident concerning a well water quality problem shall be directed to either the local public health unit or the nearest MOE office (Figure 4.1). A preliminary screening as to the nature (bacterial or chemical) of the complaint may be made to determine whether the caller should contact the health unit or MOE. (A "spill" shall be reported in accordance with Part IX of the Environmental Protection Act.)
2. If MOE is called, MOE staff will contact the client reporting the incident within 3 days by phone, mail, or site visit (Appendix 4.1).

3. If the well water quality problem is suspected of being a bacterial problem which is a threat to human or animal health, the local health unit becomes the lead agency. The owner shall be advised to obtain sample bottles and submit a series of 3 samples taken about 1 week apart to the regional health laboratory (note a and Appendix 4.2).

The regional health laboratory will analyze each sample for bacteria and return the results to the owner indicating whether the water is safe or unsafe to drink according to bacterial levels.

If a water sample is determined to be unsafe bacteriologically, the owner is advised on the health laboratory data sheet to treat drinking water and submit a second sample. If subsequent samples are not safe, the owner should contact the health department for advice on remedial measures or long term treatment. The health department may also advise the owner to contact MOE for advice on solving the bacterial contamination problem.

If the owner suspects chemical contamination and calls the health department, the health department may advise contacting MOE.

4. If the well water quality problem is identified as being one of taste, odour, colour, or is suspected to be a chemical problem, or caused by a nuisance bacteria (eg. iron bacteria) MOE shall be the lead agency.

If the water quality problem is known to be a natural characteristic of the aquifer (such as high hardness or iron content), the owner may be referred to a private lab or treatment consultant.

If the water is suspected of being contaminated due to human activity MOE staff shall visit the site, investigate, sample and report the results to the client (Appendix 4.2). This procedure is also followed for bacterial contamination cases referred to MOE by the local health department.

If the MOE investigation determines the contamination to be "on-site", MOE staff will recommend remedial action to correct or reduce the severity of the water quality problem (note b). MOE staff will advise the owner to contact other agencies such as OMAF (for advice on manure handling systems in case of bacteriological problems and for advice and technical assistance on problems related to pesticide contamination), MCCR (handling and storage of petroleum products), the local health unit (hazard to human health) or private

treatment consultants (point of use treatment systems). MOE staff will re-sample the water once remedial measures have been taken and report back to the client with further recommendations if necessary.

If the MOE investigation determines the contamination to be "off-site" then MOE's Policy No. 15-10, Guidelines for the Resolution of Ground Water Quality Interference Problems are followed (Appendix 4.3, note c). Under this policy, a temporary water supply may be provided to the owner of the contaminated well by the responsible party, the owner, or by MOE while the MOE investigation continues. The FPAC is available to provide advice to MOE staff when investigating pollution associated with livestock operations and are usually called when dealing with questions of normal farming practice. The restoration of a permanent supply by the responsible party, the owner, or MOE may take place prior to the conclusion of the investigation. Legal action may be taken against the party responsible for the contamination in some cases.

NOTES:

- a) Individual health agencies across the province have their own policies regarding water sampling for private water supply. Some local health agencies will collect samples or request the owner to collect and forward samples to either their office or directly to the public health lab for bacteriological analysis. It is recommended that semi-annual samples being taken in the spring and fall for analysis.
- b) Suggested remedial measures:
 - clean-up of contamination in a private well water supply that is self-induced or of natural causes is the responsibility of the well owner
 - restoration of private well water supplies contaminated by unlawful contaminant discharges or spills by a third party is provided for in MOE Policy No. 15-10 (Appendix 4.3, note c)
 - restoration of private well water supplies contaminated by the application of road salt for winter road maintenance is provided for in MOE Policy No. 15-04 (Appendix 4.4)
- c) The MOE guidelines for the resolution of groundwater quality interference problems are found in MOE Policy No. 15-10 (Appendix 4.3). The guideline is "...intended to facilitate implementation of the groundwater quality management policies spelled out in the publication "Water Management: Goals, Policies,

Objectives and Implementation Procedures of the
Ministry of the Environment".

4.5 LEGISLATION

Ontario Water Resources Act (MOE)

Section

- 14 - defines impaired water quality
- 15 - MOE responsible for surface and ground water, may examine for pollution, may get injunction prohibiting discharge
- 16 - discharge of polluting material prohibited, Minister to be notified of abnormal discharges into water
- 17 - may prohibit or regulate discharge of sewage
- 20 - controls the taking of water
- 22 - controls well construction, provides for licensing of well contractors, and technicians
- 44 - regulations may be made for:
 - (h) prescribing drinking water quality standards
 - (r) controlling the use of water from any supply
 - (1a) regulating well construction, maintenance, use cleaning and decontamination, or abandonment.

Environmental Protection Act (MOE)

Section

- 5 - no discharge of contaminants into the natural environment in excess of regulations,
 - (2) exempts animal wastes disposed of in accordance with normal farming practice
- 6,7 - control orders and stop orders can be issued to person(s) responsible for contamination
- 8 - approval required for discharge of contaminant
- 12 - notification of Ministry required if contaminant is discharged in excess of normal levels
- 13 - discharge of harmful contaminants prohibited
- 14 - Ministry to be notified if a harmful contaminant is discharged
- 16 - Minister may order all steps necessary to repair damage

Part IX Spills

- 79(4) - doesn't apply to animal wastes if in accordance with normal farming practice
- 80 - person having control must notify Ministry, etc.
- 81 - owner must do everything practicable

- 84 - no disposal of pollutant without approval
- 85 - orders by Minister to take action for amelioration of adverse effects
- 87 - compensation for damage from spills (ECC)

Pesticides Act (MOE)

Section

- 4 - prohibits improper use of pesticides
- 20,21 - stop orders and control orders may be made for improper handling, storage, use, disposal, transport or display of pesticides
- 22 - notification of MOE of abnormal pesticide discharges required
- 23 - Minister may order responsible party to repair, decontaminate or prevent impairment to environment from improper pesticide use
- 28 - regulations may be made regarding:
 - (22) storage, use, disposal, display and
 - (30,31) transport of pesticides
 - (34) measures to be taken to clean or decontaminate environment that has come in contact with pesticide

Health Protection and Promotion Act (MOH)

Section

- 10 - health unit area shall be inspected to decrease and prevent health hazards (ie. something that is likely to have adverse effect on human health)
- 13 - order to close, placard, repair/upgrade, cleanse, disinfect, remove, destroy, or prohibit use of any "premises" may be given by medical officer of health ("premises" includes water)
- 20 - every person who owns a residential building shall provide potable water and sewage disposal for residents
- 95 - may make regulations prescribing standards for food and drink

Gasoline Handling Act (MCCR)

Section

- 15 - (f) may make regulations regarding approved equipment and tanks for the handling and storage of petroleum products and specify measures to be used to detect leakage.
 - (j) permits the regulation of the reporting of leaks and spills of petroleum products from storage tanks or equipment

Petroleum Resources Act (MNR)

Section

- 17 - (j) regulations may be made regarding the use of the subsurface for disposal of brine produced in association with oil and gas

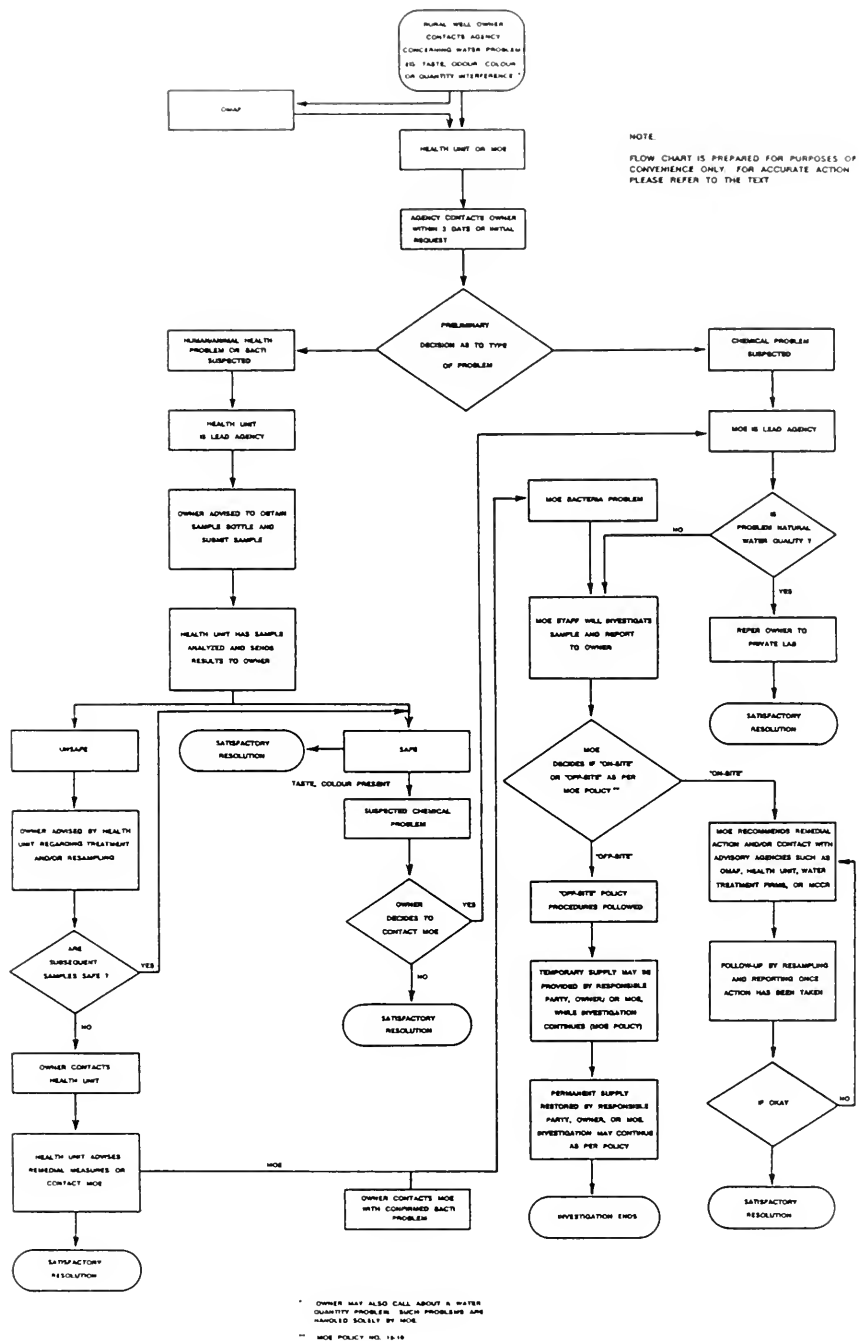


FIGURE 4.1 PROTOCOL FOR HANDLING WELL WATER QUALITY INCIDENTS

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- Gasoline Handling Act, R.S.O. 1980, Chapter 185 as amended.
(Ministry of Consumer and Commercial Relations)

Health Protection and Promotion Act, S.O. 1983, Chapter 10
as amended.
(Ministry of Health)

Ontario Water Resources Act, R.S.O. 1980, Chapter 361 as
amended.
(Ministry of the Environment)

Pesticides Act, R.S.O. 1980, Chapter 376 as amended.
(Ministry of the Environment)

Petroleum Resources Act, R.S.O. 1980, Chapter 377.
(Ministry of Natural Resources)

APPENDIX 4.1

THE RESOLUTION OF GROUND WATER QUALITY
INTERFERENCE PROBLEMS
(MINISTRY OF THE ENVIRONMENT)

PREPARED BY
WORKING GROUP V

SEPTEMBER 3, 1986

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1.0 INTRODUCTION

To facilitate implementation of the Ministry of the Environment's "Blue Book", five Working Groups were formed under the auspices of the Ministry's Water Management Steering Committee, and tasks were assigned to each. Working Group V was given the task of developing implementation procedures for the resolution of ground water quality interference problems. The following report presents the results of the Group's work.

2.0 BACKGROUND ASSUMPTIONS

As a result of a detailed review of many factors, including Part IX, EP Act, RSO, 1980 (formerly Bill 24 and the report of the Abatement Procedures Committee), the following assumptions have been made by Working Group V in developing guidelines and procedures for solving ground water quality interference problems:

- (1) It is the policy of the Ministry of the Environment to ensure that action is taken to clean up and restore the environment in such a manner that inconvenience to the public and environmental damage are minimized. This includes action for restoring affected water supplies or providing alternate sources for these supplies affected by a third party.

This does not imply that the Ministry of the Environment is responsible for the contaminant discharge with respect to its cause or for any costs which might be incurred for restoring the environment, for restoring affected water supplies, or for damages to individuals. Such costs are ultimately the responsibility of the person who caused the spill and/or the person owning or having control of the contaminant.

- (2) Legislation and resources are, or will be, available which will allow the Ministry to require the clean-up and restoration of the affected supplies.
- (3) The resolution of ground water quality interference problems is not dependent upon the availability of funds from either the person who has caused, or is accused of causing, the contamination, or the person damaged by the interference. Funds for investigation, clean-up and/or restoration are, or will be, available to the Ministry.

The following is a conceptual outline of the proposed policy approach to the resolution of ground water quality interference problems:

- The Ministry has jurisdiction over the investigation, clean-up and restoration of the environment and/or water supplies;

- the action necessary to resolve these cases can be taken by the polluter, the affected party or by the Ministry.
- there are a number of mechanisms available to ensure that the appropriate action is taken. These include the use of Ministerial Orders, outside consultants, voluntary support from either the polluter or the affected party, or by the Ministry doing the work required.

3.0 DECISIONS TO PERMIT IMPLEMENTATION

A number of administrative decisions have been made to facilitate the implementation of the policy approach described in the preceding section.

3.1 Definitions of the Environment

For the purposes of the ground water quality interference policy, the environment includes:

- the subsurface;
- water within the subsurface; and
- the path traversed during the movement of contaminants:
 - o from the surface to the subsurface;
 - o from the subsurface to the surface; and
 - o within the subsurface

Contaminants which move, or have moved, in the subsurface; (except in man-made structures) for any part of their travel path, are the concern of this Ministry even if they are now only present in man-made structures (basements, tunnels, etc.).

3.2 Responsibility

It is the policy of the Ministry of the Environment in all cases and at all times to ensure that action is taken to resolve ground water quality interference and this will not be abdicated when delegated to any other party. The Ministry may (when necessary) order, request or hire someone to carry out the required work to its satisfaction.

This does not detract from the responsibility of the owner of the contaminant or the person having control of the contaminant discharge to pay for all costs associated with the contaminant discharge including the investigation, the clean up of the environment, and the restoration of affected water supplies and to do all that is practicable to minimize damage caused by the contaminant discharge and to facilitate clean-up.

Where it will not substantially impede the resolution of a problem the polluter will be given the opportunity to act in any or all aspects of the clean-up, investigation or restoration. However, when the MOE is not satisfied with

the progress being made by the polluter, the Ministry will proceed unilaterally to resolve or alleviate the problem using whatever resources are available.

The required resolution of each case with respect to clean-up and restoration will be determined and specified by the Ministry and will depend upon site-specific conditions. Implementation procedures and guidelines are presented in detail in Appendix I.

3.3 Timing

The Ministry of the Environment will ensure that appropriate action is taken as quickly as possible to minimize public inconvenience and environmental damage.

3.4 Action Plan

In all cases, an Action Plan for resolving the problem will be prepared early in the proceedings before substantial funds are expended. The Action Plan should take the following into consideration:

- the anticipated scope, timing and methodology of the investigation;
- the anticipated scope, timing and methodology of the clean-up;
- the anticipated methodology and timing of restoration;
- the anticipated legal and administrative action for closing out the problem and collecting funds, should this be necessary.

3.5 Funding and Costs

Prior to any extensive investigations, the costs of the proposed resolution - including investigation, clean-up and restoration - shall be weighed against the benefits of doing the work. (see Appendix II)

Where it is anticipated that costs to the Ministry for the investigation, clean-up and restoration will be significant, the Regional Director will have to seek funds from the appropriate source.

3.6 Clean-Up

The Ministry of the Environment will decide on a case-by-case basis what, if any, level of clean-up it will require or undertake. (see Appendix II)

3.7 Restoration

The permanent restoration of water supplies which have been significantly affected and the provision of temporary

supplies will be required or undertaken in cases where the problem is caused by a third party (not the complainant), whether or not the specific origin of the contamination can be identified.

No restoration will be undertaken where the problem is:

- self-induced;
- of a natural cause; or
- insignificant.

APPENDIX I

IMPLEMENTATION PROCEDURES AND GUIDELINESTiming of Ministry Response

These guidelines are to be applied on a case-by-case basis. They are based on the concepts in "The Resolution of Ground Water Quality Interference Problems".

1. Ministry personnel will respond by telephone, mail or a site visit to each complaint or notification of contamination within three working days. Where a public health or safety factor is identified, the Ministry must respond immediately and in accordance with the Ministry's Contingency Plan.
2. As soon as possible after the initial response, the Ministry will place the problem in one of the following categories:
 - (a) the contamination is from a natural source;
 - (b) the contamination is the fault of the owner;
 - (c) the contamination is insignificant and thereby does not require Ministry involvement;
 - (d) the contamination is significant and derived by "unnatural" processes from an outside source or a third party (the particular source does not have to be specifically identified at this stage);
 - (e) the contamination cannot be attributed to any of the foregoing.

Special circumstances which might require some delay at this stage are:

- (i) where poor well construction causes complications which make it impossible for the Ministry to categorize the problem. Under these conditions, the Ministry will require that the owner rectify this well construction problem before it proceeds with any further action or investigation;
 - (ii) where the Ministry wishes the well owner to undertake some work, perhaps pump the well to waste or retain a contractor to clean out the well, before the Ministry is able to categorize the problem.
3. Category (a), (b), or (c)

If it is determined that the contamination is (a) natural, (b) the fault of the owner, or (c) insignificant, the Ministry will withdraw from the problem.

If the complainant is not satisfied with this decision, he may proceed independently to investigate the cause of the problem. The Ministry may be re-involved based on the results of this investigation.

6. Category (d)

If the contamination is identified as (d) from an outside source, the Ministry will ensure that the complainant is provided with a temporary water supply until arrangements can be made for a permanent supply.

Temporary and permanent supplies will be provided under the following conditions:

(a) where the Ontario Drinking Water Objectives for health related parameters are exceeded. These objectives are listed in "Water Management Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment", November 1978, Revised May 1984.

(b) at the discretion of the Regional Director where the Ontario Drinking Water Objectives for non-health-related parameters are exceeded.

(c) on the advice of the Medical Officer of Health.

(d) on the advice of a veterinarian when the water is to be used for livestock.

Temporary or permanent water supplies will only be provided where the increase in the concentration of a contaminant from an outside source, is considered by the Regional Director to be significant (even though the levels in Policy No. 15-08-01 are exceeded).

(NOTE - DELETE WORDS IN BRACKETS WHEN POLICY NUMBER 15-08-01 IS REVISED.)

Temporary or permanent water supplies may be provided by the complainant, by the person responsible for the contamination, or by the Ministry. These supplies must be acceptable to the Ministry.

5. Category (e)

If the cause of the complaint cannot be identified as (a), (b) or (c), or the contaminant cannot be identified as (d) from an outside source, the investigation will continue. The major objective of this continuing investigation will be to classify the complaint to either justify the provision of a temporary supply or to indicate whether or not the Ministry should withdraw from the problem.

A temporary and/or a permanent water supply will be provided only if the problem has been classified as (d)

from an outside source, or if this is expressly directed by the Regional Director. The Director may allow provision of a temporary water supply when there is good reason to believe that the contamination is from an outside source (d) but evidence is not as yet conclusive.

6. Preparation of Action Plan

If after the contaminant has been determined to be from (d) an outside source, and a temporary supply has been provided, or if the cause of the complaint is (e) not identified, and the Ministry is still involved, the Ministry will prepare an Action Plan. This Action Plan will be prepared and communicated to all interested parties within a maximum of 25 working days following receipt of the complaint. It will outline a program (critical path method or some other approach that ensures consideration of all alternatives and the necessary decisions) for dealing with the problem.

The Action Plan prepared at this stage may be subject to modification as more data are collected but it should be completed at this early stage in the proceedings, at least in a tentative format. This is necessary for a number of reasons. For example, the extent of the hydrogeologic appraisal of the problem will be dependent on factors such as the acceptability of various procedures for supply restoration, the need for detailed data to support legal actions and the need for the identification of the source of the contaminant.

The Action Plan should specify the following:

- (a) the critical stages in the investigation and resolution of the problem and potential legal action as well as the chronology for these stages.
- (b) The deadlines for the provision of a temporary water supply and the time in which the Ministry will make a commitment to the homeowner to provide a permanent water supply if this is shown to be necessary.

The Action Plan should also identify potential sources of permanent water supplies. However, the time necessary to restore the supply on a permanent basis is difficult to specify as it depends on such factors as the availability of contractors and agreements with municipalities for connections to municipal systems. This time must be specified once a commitment is made for a permanent supply. However, delays of greater than two months to evaluate the rate in which the contaminants will be attenuated by natural processes after the cause of the contamination has been identified will not normally be acceptable.

APPENDIX II

OPERATIONAL CONSIDERATIONSConsiderations in Determining the Scope of the Investigation

The following factors should be taken into account in determining the extent of investigation intended to isolate the source of contamination:

1. Some hydrogeologic environments are particularly difficult to evaluate and to investigate and some contamination cases, particularly where more than one possible source is present, may be extremely difficult to resolve. Where success seems unlikely, an inordinate amount of money should not be spent in seeking the source of the contamination.
2. There is little point in pursuing an exploration program, the only purpose of which is to positively identify the owner of a contaminant or the party responsible for the contamination, in cases where only an insignificant portion of the costs associated with the exploration program and the resolution of the problem (clean-up, restoration, and exploration costs) could be recovered from any of the parties who might be found responsible for these costs.
3. Where the cost of resolving a problem are significantly less than those involved in identifying the owner of the source of the contaminants and the legal costs, the Ministry should proceed with the environmental clean-up and the restoration of water supplies as necessary, without attempting to assign responsibility for the problem.

Considerations in Determining the Extent, Urgency and Method of Environmental Clean-Up

In any cost evaluation (the cost of clean-up versus the cost of restoration versus the benefits of doing the work), clean-up will be required unless the costs for clean-up are far in excess of any benefits. In general, the availability of inexpensive alternate supplies and/or treatment methods will not be considered as a reason for not requiring environmental clean-up.

The following factors should be taken into consideration in establishing the extent and urgency of clean-up programs:

1. The availability and cost of alternate sources of water.
 - (a) area serviced by a public water supply;

- (b) nearby surface water available;
 - (c) alternate aquifers available;
 - (d) alternate sources of water are not available except at exorbitant costs.
2. The practicability of treating the contaminated supplies to an acceptable level.
 3. The number of wells which have been or are likely to be affected by the contamination and the number of people involved.
 4. The potential for restricting the use of ground water in the contaminant plume (for example, by burying the land).
 5. The quality of the "natural" ground water in the area.
 - (a) naturally bad;
 - (b) previously contaminated.
 6. The potential for mineral extraction from the ground water.
 7. The impact (corrosiveness) of the contamination on buried utilities, building foundations, etc.
 8. The potential for impact on nearby surface water.
 9. The time which could be required for the natural attenuation of the contaminants in the ground water (days, years, indeterminate).
 10. The toxicity of the contaminants.
 - (a) toxic at levels below which the water supply would be rejected because of bad taste;
 - (b) toxic at levels exceeding those where the water supply would be rejected because of bad taste.
 11. The rate at which the contaminant plume is expanding. This would determine the urgency for action to reduce:
 - (a) the cost of the clean-up;
 - (b) the spread of the contaminants, etc.

Where dealing with an "old" contaminant plume which can be shown to be relatively stable, some delay may be acceptable.

12. Potential for interference with activities on the ground surface.

Considerations in Determining the Method of Temporary Water Supply Restoration

In most cases the establishment of the initial temporary water supply will be by a trucked supply to a temporary

tank. There will, however, be some cases where alternate methods will be preferable either because of expense or convenience. For example, it may be acceptable to provide a hydrant in a public place and allow the affected parties to carry their drinking and cooking water home.

Considerations in Determining the Method of Permanent Water Supply Restoration

The method by which an affected water supply will be restored will be selected primarily on the basis of cost and convenience to the user. Cost estimates will consider the maintenance of the system, the time it will have to operate (e.g. considering natural attenuation of the contaminant), and the possibility that contamination will spread and affect additional water supplies and the system will have to be expanded.

Methods of permanent restoration include:

1. Connect to a municipal supply.
2. Drill a new well, reconstruct or deepen an existing well.
3. Treat the contaminated supply.
4. Use a source of surface water.
5. Haul water by truck.

Where large costs are involved in the final restoration of water supplies, a decision on this final restoration may be delayed pending the results of an exploration program to designate the best source for the new permanent supply.

Use of Outside Experts, Consultants, Contractors and Municipalities

In most cases, Ministry personnel will carry each case up to the stage of documenting a strategy (i.e. preparation of the action plan) for the resolution of the problem. At that point, consideration may be given to employing assistance from outside the Ministry. Variations from this approach may be taken at the discretion of the manager involved.

Notification of Parties Responsible for the Contamination

When the source of the contamination has been defined to a high level of certainty, notification will be sent to the parties believed to be responsible for the contaminant discharge and they will be given an opportunity to participate in the resolution of the problem. If no response is received within ten days, or if the response is negative, the Ministry will proceed independently or issue an order requiring action by the responsible parties.

In cases where there is a reason to proceed expeditiously, proceedings will not be delayed to accommodate participation by the parties responsible for the contaminant discharge.

A party affected by the contamination should not be inconvenienced by delays in restoring the water supply on a temporary or on a permanent basis caused by this notification.

Restoration of Supplies in Serviced Areas

From time to time, supplies in serviced areas may be affected by a municipality in its performance of its public service.

- contamination due to winter road maintenance (see also discussion of road maintenance activities in the following section)
- the storage of road salt or sand/salt mixtures
- blasting for sewers, etc.
- leaking gasoline storage tanks
- leaking sewers, etc.

Under these specific circumstances, in keeping with the present MOE water quantity interference guidelines, the owner of a contaminated well should be required to connect to the municipal supply at his own expense, rather than at the expense of the municipality.

Contamination of Supplies by Road Maintenance Activities

Where a water supply or the environment have been contaminated by road deicing materials originating in a storage area, the problem will be the responsibility of the responsible road authority and will be handled in accordance with this policy and these guidelines. Where the contamination is from the application of deicing chemicals on a road for the purposes of deicing, MOE Policy No. 15-04 titled "Resolution of Well Water Quality Problems Resulting from Winter Road Maintenance" applies.

Bacterial and Nitrate Contamination - Septic Systems and Feedlots

Under this policy, the Ministry will not be responsible for the resolution of bacterial or nitrate contamination problems caused by a number of mutually interfering wells and septic systems in sub-divisions. The Ministry's Private Servicing Funding Program may have applicability in these situations). Normal procedures for the restoration of the environment and the water supply can be followed however, where one particular source of either nitrate or bacteria, outside the sub-division, such as a feedlot can be identified. Temporary supplies will be provided in such cases only after a particular outside source is designated.

This position was adopted as it was felt that the Ministry could not or would not wish to:

- a) provide temporary supplies for entire sub-divisions under this policy, without hope of recovering the costs;
- b) designate specific cause and effect for individual well and septic tank systems (usually a M.O.H. responsibility) or provide temporary supplies for such individual problems.

Federal Projects

Contamination originating on Federal projects is not the responsibility of the Ministry of the Environment. The Ministry will act as necessary to liaise with Federal authorities.

Leaking Sewers

Normal procedures for supply restoration will be followed where contamination is attributed to a leaking sewer, in an area where there is not a municipal water supply service.

APPENDIX 4.2

PROTOCOL - COORDINATION OF ACTIVITIES OF
RELATED GOVERNMENT AGENCIES IN THE FIELD OF
PRIVATE WATER SUPPLIES
(PREPARED BY THE DRINKING WATER SECTION
- MINISTRY OF THE ENVIRONMENT, 1987)

The following is based on current legislative mandates of the government agencies concerned and policies respecting drinking water (see Appendix).

A. WATER SAMPLES FOR BACTERIOLOGICAL ANALYSIS

1. An individual submits drinking water samples to any public health laboratory for bacteriological analysis free of charge. The results of the analysis are provided directly to the individual by the laboratory. The recipient should be advised by the public health laboratory to contact the Medical Officer of Health for assistance in the interpretation of the laboratory analysis results. When advice is sought for improvement of the private water source or for the proper home water treatment, he may be referred to the Water Resources Branch, or to the District or Regional MOE office.
2. The Health Unit obtains drinking water samples from private supplies for bacteriological analysis at the public health laboratory in connection with water-related complaints from individuals or in case of an investigation of a water-related disease outbreak, or when a health hazard is suspected to be present in drinking water. The Medical Officer of Health should consult the MOE District or Regional Office, when pollution of the aquifer is suspected.

(NOTE: In some municipalities, when sampling is done in connection with a house mortgage or real estate transaction, the Health Unit provides the service for a set fee).

3. The MOE obtains drinking water samples from private water supplies for bacteriological analysis, in connection with the "Private Services Funding Program" or with an MOE study or survey of the quality of ground water in an area when pollution of the aquifer is suspected. The bacteriological samples are submitted to the MOE

or Public Health Laboratory, whichever is most accessible. The Medical Officer of Health should be consulted prior to the survey or study to be undertaken in his area of jurisdiction. His assistance may be sought when required.

B. WATER SAMPLES FOR CHEMICAL ANALYSIS

1. The MOE obtains drinking water samples from private water supplies for chemical analysis, in connection with similar circumstances cited above (Item A-3). The Medical Officer of Health should be consulted prior to the survey. He should be provided a copy of adverse laboratory analysis results so that he can provide advice to the affected water source owners. Chemical analysis of water samples is performed by the MOE Regional or Central Laboratory. Samples for chemical analysis from private individuals are not accepted.
2. Water samples for chemical analysis are obtained by the Water Resources Branch in connection with pesticides surveys, e.g. Alachlor, Aldicarb, etc. Copies of adverse results are provided to the Medical Officer of Health, who notified private well owners concerned.
3. The Health Unit may submit to the MOE laboratory, private water samples for chemical analysis under the LIS program, with prior authorization from the Drinking Water Section, Water Resources Branch, or any District or Regional MOE office. Copy of the results are provided to the appropriate MOE Branch.

C. OTHER MINISTRIES

1. When the Ministry of Transportation and Communications (MTC)* or the Ontario Hydro (OH) intend to carry out a well sampling program associated with the construction and maintenance activities in the vicinity of their stations or premises, prior consultation should be made with the MOE District office and the Medical Officers of Health of that area. A joint meeting between these agencies is recommended. The purpose of the well sampling program, procedures to be followed in the survey, interpretation of laboratory results, and applicable remedial measures should be discussed among other things.

* The Ministry of Transportation and Communications (MTC) name was changed to the Ministry of Transportation Ontario (MTO) on October 1987.

D. INTERPRETATION OF ANALYSIS RESULTS

1. The Medical Officer of Health upon receipt of adverse laboratory results or when advised by the MTC or OH, should notify an individual if his water is not fit to drink and provide his interpretation of the results.
2. The current Ontario Drinking Water Objectives, should be applied in determining the potability of water in private water supplies. When parameters not cited in the Objectives are encountered, the Drinking Water Section, Water Resources Branch, should be consulted.

- APPENDIX -

PRIVATE DRINKING WATER SUPPLIESI. LEGISLATIVE MANDATES1. Ministry of the Environment

ONTARIO WATER RESOURCES ACT (RSO 1980, CHAP. 361)

Section 7, (1) Notwithstanding any other Act, it is the function of the Minister and he has power,

- (d) To disseminate information and advice with respect to the collection, production, transmission, treatment, storage, supply and distribution of water ...

Section 15

- (1) "... the Minister has the supervision of all surface waters and ground waters in Ontario."
- (2) "The Minister may examine any surface waters or ground waters in Ontario from time to time to determine what, if any, pollution exists and the causes thereof."

(Note: Section 23 - WATERWORKS)

(9) a), b), c) & d) - The provisions of Section 23 covering waterworks do not apply to waterworks to be used for supplying water for agricultural, commercial, or industrial purposes; to a waterworks not capable of supplying water at a rate greater than 50,000 litres per day; to a privately owned waterworks for supplying water for five or fewer residences.)

ONTARIO REGULATION 612/84 made under the OWRC Act pertaining to Water Wells.

Section 11 (1) - "Every person constructing a well shall comply with the requirements set out in Sections 12, 13, 14, 15, 17 and 18."

Section 12 (1) - "The site of a new well shall be separated from a source of pollution by at least the separation distance required by the Ontario Regulation 374/81 between the source of pollution and the well of the proposed type."

Section 20 - Deals with the owner's responsibility in preventing contamination of his well.

Section 21 - "The well owner ... shall forthwith abandon the well if directed to do so by the Director." When and how to plug the well when it is to be abandoned is provided in this Section.

2. Ministry of Health

HEALTH PROTECTION AND PROMOTION ACT (S.O. 1983, CHAP. 10)

Section 82 - "Where the Minister is of the opinion that a situation exists anywhere in Ontario that constitutes or may constitute a risk to the health of persons, the Minister may direct the Chief Medical Officer of Health, to investigate the situation and take such action as the Chief Medical Officer of Health consider appropriate to prevent, eliminate, and decrease the risk of health caused by the situation."

3. Medical Officer of Health

HEALTH PROTECTION AND PROMOTION ACT (S.O. 1983, CHAP.10)

Section 10 (1) - "Every Medical Officer of Health shall inspect or cause the inspection of the health unit * ... for the purpose of preventing, eliminating, and decreasing the effects of health hazards in the health unit."

Section 11 (1) - "Where ... a health hazard related to occupational or environmental health exists in the health unit ... the medical officer of health shall investigate the complaint to determine whether a health hazard exists or does not exist."

* "health unit means an area that, by or under any Act, is the area of jurisdiction of the Board of Health.

Section 12 (1) - "Every medical officer of health shall keep himself informed in respect of matters related to occupational and environmental health."

Section 20 (1) - "Every person who owns a residential building shall provide:

- (a) potable water
- (b) sanitary facilities or a privy, for the residents of the residential building."

4. Board of Health or Medical Officer of Health

HEALTH PROTECTION AND PROMOTION ACT (S.O. 1983, CHAP. 10)

Section 110 (1) - "The by-law in Schedule B to and any by-law passed under Section 156 or 157 of the PUBLIC HEALTH ACT that is in force immediately before this ACT (HPP Act) comes into force shall remain in force, except in so far as it conflicts with this ACT or the regulations, until revoked by the council or Board where such by-law is in force, and for purposes of enforcement of such by-law shall be deemed to be a regulation."

Section 110 (2) - "Every board of Health shall ensure compliance with the by-laws mentioned in subsection (1) within the health unit served by the Board of Health."

Note: (By-law in Schedule B (Public Health Act))

Section 12 "The owner of a house within the municipality shall provide for the occupants of the house a sufficient supply of water for drinking and sanitary purposes ..."

Section 13 "If the local Board of Health or medical officer of health certifies that a well should be filled or otherwise treated, such well shall be dealt with accordingly by the owner or occupant of the premises."

Where it is anticipated that costs to the Ministry for the investigation, clean-up and restoration will be significant, the Regional Director will have to seek funds from the appropriate source.

7. Clean-Up

The Ministry of the Environment will decide on a case-by-case basis what, if any, level of clean up it will require or undertake. (See Appendix II of the report "The Resolution of Ground Water Quality Interference Problems").

8. Restoration

The permanent restoration of water supplies which have been significantly affected and the provision of temporary supplies will be required or undertaken in cases where the problem is caused by a third party (not the complainant), whether or not the specific origin of the contamination can be identified.

No restoration will be undertaken where the problem is:

- self-induced;
- of a natural cause; or
- insignificant

Where it will not substantially impede the resolution of a problem the polluter will be given the opportunity to act in any or all aspects of the clean-up, investigation or restoration. However, when MOE is not satisfied with the progress being made by the polluter, the Ministry will proceed to resolve or alleviate the problem using whatever means are available and appropriate.

Where the pollution is a "spill" under Part IX of the Environmental Protection Act, the polluter has a clear duty to clean up, and specific tools are available to the Ministry (see Sections 81, 82, 85 and 88).

5. Action Plan

In no case will substantial Ministry funds be expended or costly corrective action ordered until an action plan has been prepared. The plan should take the following into consideration:

- the anticipated scope, timing and methodology of
 - investigation
 - clean-up; and
 - restoration;
- the anticipated legal and administrative action for closing out the problem and collecting funds, should this be necessary.

6. Funding and Costs

Prior to any extensive investigations, the costs of the proposed resolution - including investigation, clean-up and restoration - shall be weighed against the benefits of doing the work (See Appendix II of the report "The Resolution of Ground Water Quality Interference Problems").

2. Who Can Take Action

The action necessary to resolve these cases can be taken by the polluter, the affected party, the Ministry, the municipality or others.

3. Mechanism for Action

There are a number of mechanisms available to ensure that the appropriate action is taken. These include the use of Ministerial Orders, outside consultants, voluntary support from either the polluter or the affected party, or by the Ministry, the municipality or others doing the work required.

4. Responsibility

4.1 Responsibility of MOE

The Ministry will in all cases and at all times ensure that action is taken to resolve ground water quality interference and this responsibility will not be abdicated when delegated to or assumed by any other party. The Ministry may order, request or hire someone to carry out the required work to its satisfaction.

The required resolution of each case with respect to clean-up and restoration will be determined and specified by the Ministry and will depend upon site-specific conditions.

Implementation procedures and guidelines are presented in detail in Appendix I of the report "The Resolution of Ground Water Quality Interference Problems".

4.2 Responsibility of Owner

It is the responsibility of the owner of the contaminant or the person having control of the contaminant to pay for all costs associated with the contaminant discharge including the investigation, the clean-up of the environment, and the restoration of affected water supplies and to do all that is practicable to minimize damage caused by the contaminant discharge and to facilitate clean-up.

APPENDIX 4.3

GUIDELINES FOR THE RESOLUTION OF GROUND WATER
QUALITY INTERFERENCE PROBLEMS
(MOE POLICY NO. 15-10)POINT OF CONTACT

Director, Water Resources Branch

LEGISLATIVE AUTHORITY

the Ontario Water Resources Act
the Environmental Protection Act

STATEMENT OF PRINCIPLES

These guidelines are intended to facilitate implementation of the ground water quality management policies spelled out in the publication "Water Management". Reference should be made to that document, and to the report "The Resolution of Ground Water Quality Interference Problems" for additional details of these guidelines.

DEFINITIONSEnvironment

For the purposes of the ground water quality management policy, the environment includes:

- the subsurface;
- water within the subsurface;
and
- the path traversed during the movement of contaminants;
 - from the surface to the subsurface;
 - from the subsurface to the surface; and
 - within the subsurface.

Ground Water Quality Interference

The deterioration of the quality of ground water resulting from the release of contaminants.

1. MOE Jurisdiction

The Ministry has jurisdiction over the investigation, clean-up and restoration of the environment and/or water supplies.

APPENDIX 4.4

RESOLUTION OF WELL WATER QUALITY PROBLEMS
RESULTING FROM WINTER ROAD MAINTENANCE
(MOE POLICY NO. 15-04)POINT OF CONTACT

Director, Water Resources Branch

LEGISLATIVE AUTHORITY

The Environmental Protection Act, Section 16

STATEMENT OF PRINCIPLES

This policy summarizes cost-sharing arrangements for situations where restoration of groundwater supplies are required as a result of winter road maintenance by a road authority. It provides guidance to Ministry of the Environment (MOE) field staff, road maintenance authorities and the public in the interpretation, implementation and application of this arrangement.

1. Objective of Policy The objective of this policy is to provide a cost-sharing arrangement between MOE and a road authority to reimburse homeowners in situations where restoration of homeowners' ground-water supplies is warranted as a result of the effects of winter road maintenance.
2. Funding Arrangements
 - 2.1 Eligibility Any well supply requiring restoration as a result of winter road maintenance by a road authority will be eligible for 100% of the allowable costs in those cases where a road authority agrees to participate and for 75% where a road authority refuses to participate.
 - 2.2 Payments MOE will reimburse the affected homeowner for 75% of the allowable costs, either directly or through a cooperating road authority.

3. Policy Implementation for
Cases Involving Individuals
or Small Groups of Homeowners
(5 homes and less)

3.1 Handling of
Complaints

The appropriate MOE regional office will examine and investigate the complaint and prepare a report outlining the conclusions, alternative courses of action and recommendations. Once a complaint is accepted by MOE, the cooperating road authority or the MOE regional office will take action through the homeowner affected to restore the water supply according to the report recommendations, and will receive invoices for review and subsequent reimbursement of the homeowner.

4. Policy Implementation for
Cases Involving More Than
5 Households

4.1 Priority
Replacement

Where more than 5 households are involved, the present system under the Private Services Funding Program will apply. However, 25% of the cost, normally paid by the homeowner, may be paid by the road authority. All claims resulting from winter road maintenance will be regarded as a priority under the Program. Consideration of the project by the Management by Results Committee will not be required.

4.2 Use of
Consultants

Where more than 5 households are involved the use of consultants is advised to identify problems and recommend solutions.

5. PROTOCOL FOR HANDLING THE CERTIFICATE OF COMPLIANCE PROGRAM

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5. PROTOCOL FOR HANDLING THE CERTIFICATE OF COMPLIANCE PROGRAM

5.1 APPLICABILITY

This protocol deals with the procedures to be followed by MOE and OMAF staff when dealing with Certificate of Compliance applications being made in accordance with the Agricultural Code of Practice. The Agricultural Code of Practice is currently under revision.

5.2 BACKGROUND

The Agricultural Code of Practice is a guideline designed to offer guidance with respect to physical layout, siting and management of livestock operations in the interests of maintaining or enhancing environmental quality. It forms the basis for the Certificate of Compliance Program which is meant to assure the farmer and the farming community that what is being done or proposed is environmentally acceptable. It can also be used as assurance to loan organizations that the applicant for financial assistance has an acceptable operation, is a good manager and that the enterprise is not likely to be inhibited, restricted or unsuccessful due to environmental considerations.

Under Section 8(1) of the Environmental Protection Act, Certificates of Approval are required to construct, alter, extend or replace any plant, structure, equipment, apparatus, mechanism or thing that may emit or discharge or from which may be emitted or discharged a contaminant (including odours) into any part of the natural environment other than water. However, Subsection 8(3)(e) exempts any plant, structure, equipment, apparatus, mechanism or thing used in agriculture from obtaining a Certificate of Approval.

The Certificate of Compliance Program is intended to provide a voluntary mechanism to fill the void created by Section 8(3)(e) of the EPA.

Although the Certificate of Compliance Program is a voluntary exercise, some municipalities have passed by-laws requiring a Certificate of Compliance for such purposes as issuance of building permits (Appendix 5.1). While the legality of this is questionable, the applicant does have avenues of appeal such as committees of adjustment and county court.

The process of applying for a Certificate of Compliance:

- provides the farmer with an awareness of environmental concerns;
- flags potential problem situations;
- steers the applicant in a reasonable course more in harmony with the community; and
- reduces the potential for land use conflicts.

Application forms are available from the local OMAF and MOE offices (Appendix I and Appendix II).

5.3 DEFINITIONS

- MOE District Officer - refers to the person responsible for the abatement program within a District.
- OMAF County Engineer - refers to personnel from the Agricultural Engineering Services. It can either be the Agricultural Engineer or the Engineering Technician.
- OMAF Contact Engineer - refers to the person in the Agricultural Engineering Services who has been designated as the contact person for the Certificate of Compliance Program.

5.4 PROTOCOL

1. The "Application for a Certificate of Compliance For Farms" form (Appendix 5.2) is completed by the farmer (Figure 5.1). The application must be signed by the applicant and must also include a site plan. It is preferable that the form is completed by the farmer in consultation with the OMAF County Engineer. If an application is sent to MOE directly by the farmer, MOE will forward a copy to OMAF.
2. The OMAF County Engineer completes an "Evaluation for Certificate of Compliance for Farms" form (Appendix 5.3) and a copy of MDS formula 2 calculation. Prior to completing the above report, the OMAF Engineer may make a site visit either singly or accompanied by MOE. In some situations, the OMAF Engineer may complete the report based on knowledge of the farm and the farmer, and by using aerial photos. The OMAF Engineer should verify all distances, data, and other

environmental aspects noted on the application. This should include a check with the local municipality regarding the zoning of the subject and surrounding properties.

3. The OMAF County Engineer signs and dates the Evaluation form and forwards it along with the Application form and site plan to the MOE District Officer.
4. On receipt of the application, the municipality involved will be notified immediately by the MOE District Officer. Notification will consist of a letter providing sufficient detail for land use evaluation but since much of the information in the application could be confidential, the completed application should not be forwarded.
5. MOE staff should review the complaint history (if any) of the farm or any other relevant information MOE staff considers important including comments received from the municipality. If need be, contact should be made with the OMAF County Engineer concerning any new information that may be pertinent to the Engineer's recommendations.
6. If the OMAF report recommends approval of the Certificate of Compliance and MOE concurs, the MOE office will process and issue a Certificate of Compliance for the subject farm operation. MOE will also issue a letter of transmittal to the applicant.
7. If both MOE and OMAF agree that a Certificate of Compliance should not be issued, a letter of denial must be sent by MOE to the applicant with an explanation of the reasons for the denial.
8. Should a disagreement arise between the OMAF and MOE field personnel with respect to the issuance of a certificate, the matter must be referred to the OMAF Contact Engineer and the MOE Regional Abatement Manager for resolution.
9. If the OMAF Contact Engineer and the MOE Regional Abatement Manager agree after consultation that a certificate should be issued, they will so advise the OMAF field personnel and the MOE District Officer in writing detailing their reasons. The MOE District Officer will then process the Application in the regular way.
10. If mutual MOE/OMAF agreement cannot be reached, no certificate will be issued. A letter of denial must be sent by MOE to the applicant with an explanation of the reasons for denial.

11. The MOE District Officer will ensure that copies of the Certificate are forwarded to the following:
 - (1) the applicant
 - (2) OMAF County Engineer
 - (3) OMAF Contact Engineer (if requested)
 - (4) OMAF County Agricultural Representative (if requested)
 - (5) Municipal Clerk
 - (6) Medical Officer of Health (if requested)
12. If the application is denied, letters of denial with reasons for the denial should be sent to:
 - (1) the applicant
 - (2) OMAF County Engineer
 - (3) OMAF County Agricultural Representative
 - (4) OMAF Contact Engineer
 - (5) Municipal Clerk

5.5 LEGISLATION

Building Code Act (HOU - Ministry of Housing)

Section

- 6(1) - deals with issuance of a building permit.

Environmental Protection Act (MOE)

Section

- 8(3)(e) - exempts any plant, structure, equipment, apparatus, mechanism or thing used in agriculture from obtaining a Certificate of Approval

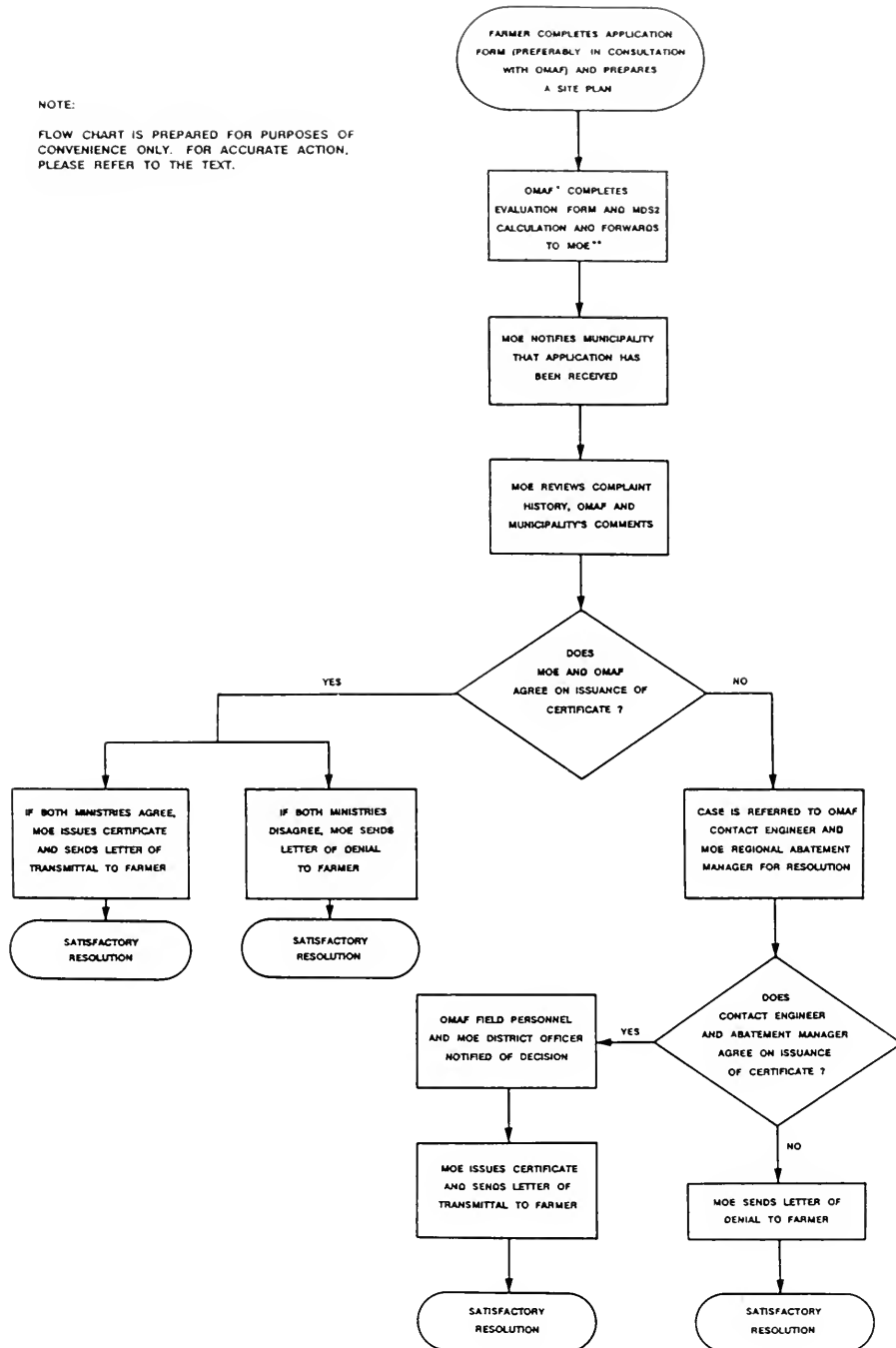
Planning Act (MMA - Ministry of Municipal Affairs)

Section

- 34 - zoning by-laws may be passed to restrict the use of the land and regulate the location, type and dimensions of buildings or structures

NOTE:

FLOW CHART IS PREPARED FOR PURPOSES OF CONVENIENCE ONLY. FOR ACCURATE ACTION, PLEASE REFER TO THE TEXT.



* OMAF REFERS TO COUNTY ENGINEER, UNLESS OTHERWISE NOTED

** MOE REFERS TO DISTRICT OFFICER, UNLESS OTHERWISE NOTED

FIGURE 5.1 PROTOCOL FOR HANDLING THE CERTIFICATE OF COMPLIANCE PROGRAM

REFERENCES

Ministry of Agriculture and Food, Ministry of the Environment, and Ministry of Housing, 1976. Agricultural Code of Practice.

LEGISLATION AND RESPONSIBLE AGENCY

Building Code Act, R.S.O. 1980, Chapter 51 as amended.
(Ministry of Housing)

Environmental Protection Act, R.S.O. 1980, Chapter 141 as amended.
(Ministry of the Environment)

Planning Act, S.O. 1983, Chapter 1 as amended.
(Ministry of Municipal Affairs)

APPENDIX 5.1

MUNICIPAL BY-LAWS

Subsection 6(1) of the Building Code Act places the onus on the Chief Building Official to issue a permit except where:

- (a) the proposed building or the proposed construction or demolition will not comply with this Act or the Building Code or will contravene any other applicable law;
- (b) the applicant is a builder as defined in the Ontario New Home Warranties Plan Act and is not registered under that Act; or
- (c) the application therefore is incomplete or any fees due are unpaid.

If there is no by-law approved by Council requiring a Certificate of Compliance, it appears to be contrary to Section 6(1)(a) for the Chief Building Official to withhold a Building Permit for lack of a Certificate of Compliance.

On the other hand, if a municipality has a by-law requiring a Certificate of Compliance for a proposed facility, the legality of this is questionable because a Certificate of Compliance takes into account environmental management of the entire operation as well as siting of the proposed additional facilities and probably is beyond the legal scope of a by-law under any existing legislation in Ontario.

OMAF has received legal opinion that the Minimum Distance Separation (MDS) Formulas can be used, and in fact MDS 2 is being used by many municipalities to control the siting of proposed livestock barns when the formula is included in a municipality's zoning by-law under provisions of the Planning Act. A properly edited version of MDS 1 should also be a companion mechanism to control the siting of non-farm buildings on properties close to livestock facilities in agricultural areas.

Please Complete and Return to
Veuillez remplir et retourner à



ONTARIO MINISTRY OF THE ENVIRONMENT
MINISTÈRE DE L'ENVIRONNEMENT DE L'ONTARIO

Street _____
Rue _____

City _____
Ville _____

APPLICATION FOR A CERTIFICATE OF COMPLIANCE FOR FARMS
DEMANDE DE CERTIFICAT DE CONFORMITÉ POUR FERMES

The undersigned/Le soussigné

submits herewith plans and specifications for the construction of:
soumet par les présentes les plans et les spécifications pour la construction:

- () Existing livestock or poultry facilities/d'installations d'élevage de bétail ou de volaille existantes
- () New livestock or poultry facilities/de nouvelles installations d'élevage de bétail ou de volaille
- () Modifications to existing livestock or poultry facilities/de modifications d'installations existantes d'élevage de bétail ou de volaille
- () Pollution abatement program facilities/d'installations dans le cadre d'un programme antipollution

The following information is submitted:
et soumet les renseignements suivants:

1. Owner of facilities _____
Propriétaire des installations (name/nom)

_____ [postal address/adresse postale]

2. Location of facilities _____
Emplacement des installations (lot no./no de parcelle) (concession no./no de concession)

_____ [township/canton]

_____ [county/comté]

3. Name of Applicant _____
Nom du requérant (please print/écrire en lettres moulées)

Postal Address _____
Adresse postale

_____ Phone _____
Téléphone

I hereby declare that the facts stated in this application are true and complete in every respect.
Je déclare que les faits exposés dans la présente demande sont exacts et complets à tout point de vue.

Signature _____ Date _____ 19 _____

4 Expected completion date _____
Date de fin des travaux prévue _____

5 Number and types of livestock
Nombre de têtes de bétail et types

Type of Livestock Type de bétail	Existing Operation Number Per Year Nombre de têtes par année	Animal Units Unités de bétail	Addition Number Per Year Nombre de têtes supplémentaires par année	Animal Units Unités de bétail	Total Operation Number Per Year Nombre total de têtes par année	Animal Units Unités de bétail

Building Plans to include: New Barn ☐ Yes ☐ No Extension of Existing Barn ☐ Yes ☐ No Remodelling of Existing Barn ☐ Yes ☐ No
Les plans de construction comprennent: Une nouvelle étable ☐ Oui ☐ Non L'agrandissement d'une étable ☐ Oui ☐ Non La modification d'une étable ☐ Oui ☐ Non

6. Manure Collection, Storage and Disposal
Collecte, entreposage et enlèvement du fumier

(a) Dry System: _____ Straw: _____ Sawdust/Shavings: _____
Système sec: _____ Paille: _____ Sciure/copeaux: _____
Type of Livestock _____
Type de bétail _____
To be used in existing facilities _____
Destiné aux installations existantes _____
new facilities _____
nouvelles installations _____
open pile _____ concrete pad _____
Tas à l'air libre _____ Plate-forme en béton _____
retaining wall _____ covered: yes _____ no _____
mur de retenue _____ couvert: oui _____ non _____
Liquids tank _____ Exercise Yard: Paved _____ Dirt _____
Réservoir à purin _____ Aire d'exercice: pavée _____ en terre _____
Number of days storage _____
Durée d'entreposage (en jours) _____

(b) Wet System
Système humide
Type of Livestock _____
Type de bétail _____
To be used in existing facilities _____
Destiné aux installations existantes _____
new facilities _____
nouvelles installations _____
Detention Pond _____ Silo _____ Below Grade Tank _____
Étang de retenue _____ Silo _____ Réservoir enterré _____
Size _____ covered _____
Dimensions _____ couvert _____
Number of days storage _____
Durée d'entreposage (en jours) _____

(c) Other: _____
Autre: _____

(d) Total acreage on own farm _____ acres
Superficie totale de votre propre ferme _____
Tillable acreage on own farm _____ acres
Superficie cultivable de votre propre ferme _____
Tillable acreage elsewhere _____ acres
Superficie cultivable en dehors _____
Name of Owner of other acreage _____
Nom du propriétaire de l'autre superficie _____
Address of Owner of other acreage _____
Adresse du propriétaire de l'autre superficie _____

Phone Number _____
Numéro de téléphone _____

Manure Removal Contracted _____ Yes/No
Enlèvement du fumier sous contrat _____ Oui/Non

Name of Contractor _____
Nom de l'entrepreneur _____
Address of Contractor _____
Adresse du contracteur _____

(e) Are you planning any further expansion of your operation after completion of present plans? Yes ☐ No ☐

Prévoyez-vous d'agrandir encore votre exploitation ultérieurement?

Oui ☐ Non ☐

If Yes, give details

Si oui, veuillez préciser

7. Does the local representative of the Ontario Ministry of Agriculture and Food know that this application is being submitted? Yes/Le représentant local du ministère de l'Agriculture et de l'Alimentation de l'Ontario a-t-il connaissance de cette demande? Oui/Non

Name of Engineer / Nom de l'ingénieur

8. Is a Certificate required by the owner prior to construction? Le propriétaire demande-t-il un certificat avant les travaux de construction?

Reason / Raison

9. Dead Stock Disposal: (Please note that a separate application must be made for an incinerator installation) Animaux morts: (Veuillez noter qu'il faut présenter une demande distincte pour installer un incinérateur)

(a) Incinerator: Details / Incinérateur: Détails

(b) Burial / Envelissement

(c) Storage and pick-up by licensed Dead Animal Disposal Company / Animaux enlevés par une compagnie de prise en charge des animaux morts autorisée

(d) Other / Autre

10. Separation Distances/Distances

(a) Distance to nearest home / Distance à la maison la plus proche

(b) Distance to nearest lot line / Distance à la limite de parcelle la plus proche

(c) Distance to nearest public road / Distance à la route publique la plus proche

(d) Distance to area zones residential / Distance aux zones résidentielles de la région

11. Other Information / Autres renseignements

NOTE — There may be municipal by-laws or other requirements which apply to this proposal. Before beginning construction, the owner should ensure that the requirements of all authorities have been satisfied.

REMARQUE — Certaines conditions ou arrêtés municipaux peuvent s'appliquer à ce projet. Avant de commencer les travaux, le propriétaire doit s'assurer qu'il a satisfait à toutes les exigences des organismes concernés.

NOTE: A Sketch must be drawn on the back of this form showing:
Lot size and location of all lot lines, and North direction
Location of all buildings new or proposed on the lot
Distances to public roads and neighbouring dwellings
Location and distances of all streams and ditches
Location of all lagoons, storage tanks and storage piles
Location and distances of nearest area zoned Residential
Side of building on which fans located

REMARQUES: Veuillez faire un croquis au dos de la présente formule en indiquant les dimensions de la parcelle avec:
L'emplacement de toutes les limites de parcelles et la direction du nord
L'emplacement de tous les bâtiments neufs en projet de la parcelle
Les distances aux routes publiques et aux habitations du voisinage
L'emplacement de tous les cours d'eau et tranchées et leur distance
L'emplacement de tous les bassins de décantation, réservoirs et tas de stockage
L'emplacement de la zone résidentielle la plus proche et sa distance
Le côté des bâtiments comportant des ventilateurs

R OFFICE USE ONLY/RÉSERVÉ AU BUREAU:

CERTIFICATE OF COMPLIANCE recommended on / LE CERTIFICAT DE CONFORMITÉ est recommandé le 19

Examiner / Examineur Region: / Région:

Approval to Include / Autorisation Incluant New Facilities Only / Nouvelles installations seulement

I agree with the above site plan/Je suis d'accord avec le relevé de terrain au-dessus

signature _____ date _____

A copy of the Certificate and Site Plan will be provided to the Municipality
une copie du Certificat et du Plan de Site sera fournie à la Municipalité

ONTARIO MINISTRY OF AGRICULTURE AND FOOD

EVALUATION FOR CERTIFICATE OF COMPLIANCE FOR FARMS

Report to (District Officer, M.O.E.) _____

From _____ Date _____

Farmer _____

(name and postal address)

Lot _____ Con. _____ Township _____ County _____

This evaluation is for certification of the management & siting of facilities for:

- ☐ Existing livestock operation only (no construction proposed).
- ☐ Specified changes, additions or commencement of livestock operation:
- (a) ☐ New (no existing bldgs.) (d) ☐ Rebuilding (e.g. after fire)
- (b) ☐ Enlargement (may include new building) (e) ☐ Manure storage
- (c) ☐ Remodelling or major renovation (f) ☐ Other pollution abatement

Section

- Manure storage (circle applicable words) wet, semi-solid, dry bedded, covered, open, in-situ, concrete, earthen, pad, wall, silo, tank, pit, pile, above, below, on grade. Days storage _____
- Water pollution potential ☐ Nil ☐ Low ☐ High (Specify) _____
- Manure utilization ☐ Own land ☐ Rented land ☐ Other ☐ Incorp. in 24 hrs.
- Manure haulage ☐ Public road ☐ Covered transport
- Method of dead animal disposal _____
- Housing: ☐ Total confinement ☐ Open feedlot ☐ paved ☐ dirt
(Specify) _____
- Noise pollution potential (e.g. fans) ☐ Nil ☐ Low ☐ High (Specify) _____
- Housekeeping, other indications of management _____
- Official plan ☐ Yes ☐ No Designation or zoning _____
- Community potential ☐ Agricultural ☐ Other (specify) _____
- Community attitude ☐ Resistance ☐ Similar (i.e. neighboring livestock)
☐ Tolerance ☐ Dissimilar (i.e. no neighboring livestock)
- ☐ Meets ☐ Does not meet M.D.S. criteria Coefficient F = _____ S = _____
- Other comments _____

4. Evaluation of application (from section 17, overleaf) (circle one) 1 2 3 4 5 6

5. Reservations/provisions/major changes re acceptance _____

6. Conditions of certificate:

The manure from _____

(number and types of animals and total animal units)

should be spread evenly over a minimum of _____ acres.

Specify applicable condition numbers from Section 18 (1-12) _____

Other _____

EVALUATION OF APPLICATION
(For Sections 14 & 15 of Evaluation Form)

1. Acceptable	No evidence of future environmental problems
2. Acceptable	With minor reservations noted in Section 15 of evaluation form.
3. Acceptable	Only with applicant's agreement to the provisions noted in Section 15.
4. Unacceptable as proposed	Should be renegotiated considering major changes as noted in Section 15
5. Unacceptable as proposed	Further negotiation appears impossible
6. Unacceptable	Because of lack of information

CONDITIONS RECOMMENDED FOR CERTIFICATE
(For Section 16 of Evaluation Form)

1. No significant additional expansion of the farming operation is likely to be considered feasible at this site. (Enter reason on evaluation form, Section 16).
2. A fly control program should be instituted.
3. Visual screening (engineer fills in specific operations on evaluation form, Section 16) should be undertaken utilizing landscaping or fencing.
4. Only a solid manure system should be used. (specify in No. 5).
5. The solid manure system storage should —
 - (a) be located at another site
 - (b) have capacity for six months accumulation of livestock manure
 - (c) be constructed of concrete
 - (d) be covered
6. The effluent from the — (a) barnyard (b) feedlot (c) exercise yard (d) solid manure storage — should be contained and handled in the same manner as liquid manure.
7. The liquid manure system storage should —
 - (a) have sufficient capacity for six months accumulation of livestock manure.
 - (b) be covered
 - (c) be protected by a safety fence
 - (d) be constructed of reinforced concrete
 - (e) be a lined earthen pit
 - (f) Other (specify in section 16)
8. Equipment used for the transfer and spreading of livestock manures should be —
 - (a) leakproof
 - (b) equipped with a satisfactory cover
 - (c) stored out of view when not in use
9. All land receiving livestock manures should be systematically cropped.
10. No livestock manures will be disposed of on this site.
11. No incineration of dead animals will be done on this site.
12. Other (Enter on evaluation form)

6. PROTOCOL FOR DEALING WITH THE MINIMUM DISTANCE
SEPARATION FORMULA 1

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6. PROTOCOL FOR DEALING WITH THE MINIMUM DISTANCE SEPARATION FORMULA 1

6.1 APPLICABILITY

This protocol deals with the procedures to be followed by MOE and OMAF staff when dealing with applications requiring a Minimum Distance Separation (MDS) Formula 1 calculation under the Agricultural Code of Practice.

MDS Formula 1 is used to determine the minimum separation distance between other land uses such as residences establishing or expanding in close proximity to a livestock operation.

6.2 BACKGROUND

Agriculture is one of the major land uses outside most cities and towns in Ontario. Intermingled with the barns, farm houses and farm fields are a variety of other land uses. In some areas, these other uses are sparsely dotted throughout the countryside. In other areas they are more densely concentrated.

Livestock operations produce odours to which neighbours may, at certain times of the year and under certain weather conditions, object. If the neighbours cannot accept this situation, the livestock operator may receive complaints and suffer harassment. Although most complaints are from non-farm neighbours, there are also cases where farmers are complaining about farmers. Sometimes the farmer may be put to considerable expense to try and correct the cause of complaints by neighbours. In many cases a livestock operation may date back long before the other land uses were established in the area.

The obvious solution to the problem is to prevent non-farm land uses from locating within agricultural areas, or at least in close proximity to livestock operations.

In 1978, the Province tabled the Food Land Guidelines in the Legislature. The Guidelines, contrary to their name, are not guidelines but represent the provincial policy on planning for agriculture. They are intended to ensure that through the planning process prime agricultural lands are identified in municipal official plans. Permitted uses in the identified agricultural areas would be restricted to agriculture, agriculturally related uses and uses compatible with agriculture.

However, the policy is not intended as a freeze of development onto prime farmland. Some non-farm development may be permitted provided there is appropriate justification provided. Certain farm-related uses, such as severances for retiring farmers and full-time farm help, are permitted by the Guidelines and may over-time become non-farm uses.

The Agricultural Code of Practice and the associated Minimum Distance Separation Formulas were another response to dealing with the increasing conflicts between agriculture and other land uses. The initial version of the Code was released in 1970, while the current version dates to 1976.

The Food Land Guidelines require any new or amended official plan make reference to the formula. The Ministries of Environment, Agriculture and Food, and the then Ministry of Housing were co-authors of the Code in 1976. The former two Ministries have been primarily responsible for its implementation. MOE and OMAF have provided comments on severances, subdivisions, by-laws, official plans, official plan amendments and other documents with regard to compliance with the MDS 1 formula. Some municipalities have incorporated the formula into zoning by-laws to deal with new residences and other buildings, others have incorporated hybrid revisions of the formula; while still others have incorporated standard setback distances.

There has been some confusion at the provincial level between OMAF and MOE as to who is responsible for the implementation of the MDS 1 formula. In some parts of the Province OMAF has been the agency responsible, in some areas MOE has been the agency responsible, while in the remaining areas both Ministries have shared the responsibility. Particular problems have occurred in shared areas, where in some occasions OMAF and MOE have applied the MDS 1 formula differently. Within OMAF both the Foodland Preservation Branch staff and the Agricultural Engineers have had some involvement in implementing the MDS 1.

The Foodland Preservation Branch of OMAF will now take the sole responsibility of implementing the MDS 1 for the Province, in all areas of Province and for all types of planning applications.

Foodland Preservation Policy Statement

Under the requirements of the Planning Act, 1983, the Food Land Guidelines are being revised to become a policy statement, entitled the Foodland Preservation Policy Statement. Through this review all of the MDS formulas are being revised, and will be incorporated as part of the policy statement.

The protocol noted above will commence when the Foodland Preservation Policy Statement is approved by Cabinet.

6.3 PROTOCOL

1. Foodland Preservation Branch of OMAF will provide, on behalf of the Province, all comments on MDS 1 formula application. Should MOE staff or other OMAF staff be requested to provide comments, such staff should forward these requests to the appropriate Land use Specialist in Foodland Preservation Branch.

Appendix I indicates the OMAF offices in which such staff are located.

2. Foodland Preservation Branch staff will consult with the Agricultural Engineers, and in particular the Contact Engineer, for advice and assistance on applying certain aspects of the formula, such as the type of factor to use in a given situation.
3. Foodland Preservation Branch staff will advise MOE staff of any MDS 1 calculations or applications upon request, as well as any calculations or applications that they feel MOE should be made aware of.
4. MOE staff, the OMAF engineers and the OMAF Foodland Preservation Branch staff will continue to participate in revising the MDS 1 formula through the Inter-Ministry Agriculture Code of Practice Review Committee.

REFERENCES

Government of Ontario, 1978. Food Land Guidelines
- A Policy Statement of the Government of Ontario on
Planning for Agriculture.

Ministry of Agriculture and Food, Ministry of the
Environment, and Ministry of Housing, 1976.
Agricultural Code of Practice.

7. PROTOCOL FOR HANDLING ODOUR, NOISE AND DUST INCIDENTS

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7. PROTOCOL FOR HANDLING ODOUR, NOISE AND DUST INCIDENTS ¹

7.1 APPLICABILITY

This protocol outlines the procedure to be followed by MOE and OMAF staff when dealing with farm related odour, noise and dust complaints.

7.2 BACKGROUND

Farm related odour, noise and dust complaints are a source of concern to both the Ministry of Agriculture and Food and the Ministry of the Environment. It is estimated that MOE deals with some 10,000 complaints each year, of which approximately 1,000 are farm related. Many of these complaints involve neighbours complaining about the odour, noise and, to a lesser degree, dust emanating from farm operations.

MOE is responsible for dealing with such environmental complaints, under the provisions of the Environmental Protection Act. However, given that resolution of agricultural odour, noise and dust complaints requires knowledge and understanding of agricultural operations and practices, consultation with OMAF is essential and very much encouraged.

The Farm Practices Protection Act, 1987, administered by OMAF, also deals with complaints about odour, noise and dust from farm practices. The Act provides for hearings before the Farm Practices Protection Board, established by this legislation, into farm related odour, noise or dust complaints that do not violate any land use control law or other related provincial legislation. Through the operation of the Board, resolution of nuisance incidents may be possible.

Role of the Farm Practices Protection Board

The Farm Practices Protection Board is appointed by the Minister of Agriculture and Food. The legislation requires that the Board be comprised of at least 5 members. The chairman or vice-chairman and two other members constitute a quorum.

¹ This protocol comes into effect with the appointment of the Farm Practices Protection Board.

The primary purpose of the Board is to inquire into an unresolved complaint respecting an agricultural operation, including the determination as to what constitutes a normal farm practice. The Farm Practices Protection Act, 1987 defines "normal farm practice".

This protocol encourages continued MOE and/or OMAF staff involvement in handling complaints about odour, noise and dust from farm operations prior to the matter coming to the Board. Staff will respond to complaints and will continue to seek resolution of the complaints. In those cases where staff have been unable to achieve a resolution or the implemented mitigation/abatement measures proposed by staff have not achieved results satisfactory to the complainant, MOE staff, after consultation with OMAF staff, will provide the complainant with information prepared by OMAF and/or Board regarding the complainant's opportunity of referring the complaint to the Board. Additional information about the Board and its function can be obtained from the Board. The referral by a complainant of a complaint to the Board, however, is intended to occur after initial attempts by staff to achieve a resolution of the farm related odour, noise or dust complaint.

Matters come before the Board only on application from the complainant.

The Farm Practices Protection Act, 1987 enables the Board to (1) inquire into and resolve a dispute, and (2) make inquiries and orders as necessary. The Board will hold a hearing (as set out in section 5 of the Act) into a farm related odour, noise or dust complaint and may subsequently order remedial action. If the order is not complied with, MOE is entitled to assess the situation and proceed under the legislated/regulatory powers granted to it. Also, the complainant in such circumstances may consider pursuing the complaint through other means.

Role of the Farm Pollution Advisory Committee

The Farm Pollution Advisory Committee (FPAC) is comprised of four farmers appointed by the Minister of the Environment under Section 3(i) of the Environmental Protection Act. The FPAC was formed in 1973.

The primary purpose of the FPAC has been to advise MOE on whether or not in any specific situation, animal waste is handled and disposed of in accordance with "normal farming practice". This advice has been considered necessary since

animal wastes disposed of in accordance with "normal farming practice" are exempt from certain provisions of the Environmental Protection Act. The Act does not define "normal farming practice". The FPAC, however, has assisted MOE in determining what is normal and acceptable in a specific situation.

Originally, the FPAC was used to assist in resolving odour problems. However, in recent years its advice has also been obtained in situations involving water pollution and in several situations involving noise problems.

With the establishment of the Farm Practices Protection Board, the FPAC will not be responsible for investigating nuisance complaints about farm related odour, noise or dust. The FPAC will continue to advise MOE with respect to livestock related water problems.

7.3 DEFINITIONS

- OMAF County Engineer - refers to personnel from the Agricultural Engineering Services. It can either be the Agricultural Engineer or the Engineering Technician.
- Environmental Officer - refers to the MOE field staff (EO) who are responsible for investigating environmental complaints. They are located in the MOE District Offices.

7.4 PROTOCOL

1. When a complaint about farm related odour, noise or dust is received by MOE personnel they will determine the details of the complaint and decide if further investigation is warranted. Should such a complaint be received by OMAF, the complainant should be referred to the appropriate MOE Office.
2. Assuming further action is needed, the MOE Environmental Officer (EO) will investigate the complaint. This may include a site visit to the farm.
3. Following the investigation the EO will determine if the complaint is valid, or in other words whether there is an odour, noise or dust problem, and whether further action is necessary. In many cases the cause of the odour, noise or dust complaint is a one time occurrence

and no further action may be required. Moreover, there are often simple and obvious things the farmer can do to alleviate the problem and the farmer may agree to undertake the appropriate action. In still other cases, the farming practice may be normal and acceptable and no further action would be warranted.

4. Should the EO determine that the nuisance complaint is farm-related, is valid, and has no easily identifiable solution, further consultation will be necessary. The EO may consult MOE's Noise Assessment Unit's Staff, for example, on a noise issue. In most cases, the EO will contact the OMAF County Engineer for advice and assistance.

At this stage of handling the complaint, the OMAF County Engineer will act as the OMAF contact person for all odour, noise and dust complaints. After assessing the complaint, the County Engineer may consult with other experts in OMAF. The County Engineer, where appropriate, may also undertake a site visit, preferably with the EO.

5. When MOE staff and/or OMAF staff have been unable to reach agreement with the farmer on a voluntary basis and the complaint is not resolved, MOE staff, after consultation with OMAF staff, will provide the complainant with information prepared by OMAF and/or the Board regarding the complainant's opportunity to refer the complaint to the Farm Practices Protection Board.
6. If the complaint is not referred to the Board by the complainant, MOE/OMAF will take no further action.
7. The Board, on receiving the complaint from the complainant will proceed according to its rules of conduct and management. Of significance to this protocol is the following expected timetable of activities:
 - setting of a hearing date within 10 days of receipt of application for hearing,
 - hearing before the Board to be held within 30 days of the setting of the hearing date,
 - decision of the Board to be issued within 30 days of the hearing.

MOE and OMAF staff's responsibilities to the Board will generally be limited to providing the Board with a background information package on the situation and actions taken to date by MOE and OMAF.

8. Neither MOE nor OMAF staff are responsible for the implementation of any order the Farm Practices Protection Board may issue.
9. Where a Board order has been complied with, such action will be considered to be indicative of the farm operator following normal farm practices, with due diligence being shown by the farm operator in carrying out activities related to the farm operation. Except in exceptional circumstances, MOE will take no further action.
10. If the order is not followed as set out by the Board, the farm practice may be considered to be not normal and/or the farm operation to not practice due diligence. MOE staff may take appropriate action under its legislation, including as necessary the issuance of a control order or the laying of charges.
11. Nothing in this protocol precludes MOE from proceeding separately with an investigation into a pollution incident that is not a nuisance-type complaint about farm related odour, noise or dust.

In this regard, it is mandatory that the FPAC's advice be obtained prior to issuing a Control Order or laying of a charge against a farmer relating to pollution. There is an exception, however, where the Regional Director has grounds for believing that obtaining the FPAC's advice would unduly delay urgently needed corrective action, or would not contribute to the resolution of a problem.

The OMAF County Engineer should be notified prior to requesting the FPAC's assistance.

If a complaint is received that involves both a livestock related water problem and a farm related odour, noise or dust complaint, priority will be given to the resolution of the water quality problem as per the Protocol for Handling Farm Waste Incidents (OMAF/MOE). Any outstanding complaint about odour, noise or dust will be dealt with according to this Protocol for Odour, Noise and Dust Incidents after resolution of the water quality problem.

12. MOE will prepare an annual report for each fiscal year on farm related odour, noise and dust complaints. This report will summarize, among other matters, the number and types of complaints received, and success of MOE/OMAF staff activities in resolving complaints. The report will also document any further action taken by

MOE on complaints that may not have been resolved as a result of a hearing before the Farm Practices Protection Board.

Copies of this report will be sent to:

- all MOE District Officers
- all OMAF County Engineers
- all MOE Regional Abatement Managers
- all OMAF and MOE Deputy Ministers and Assistant Deputy Ministers
- Director, OMAF, Foodland Preservation Branch
- Supervisor, MOE, Land Use Planning Unit
- the Farm Practices Protection Board
- the Farm Pollution Advisory Committee

13. The Farm Practices Protection Board will prepare an annual report for each fiscal year on farm-related odour, noise and dust complaints referred to it. The report will among other matters, summarize the number and types of complaints received and the disposition of those complaints.

Copies of this report will be sent to:

- the Minister of Agriculture and Food
- all MOE District Officers
- all OMAF County Engineers
- all MOE Regional Abatement Managers
- all OMAF and MOE Deputy Ministers and Assistant Deputy Ministers
- Director, OMAF, Foodland Preservation Branch
- Supervisor, MOE, Land Use Planning Unit
- the Farm Pollution Advisory Committee

14. This protocol for odour, noise and dust incidents will be reviewed by OMAF and MOE after twelve months from the date of appointment of the Farm Practices Protection Board.

7.5 LEGISLATION

Environmental Protection Act (MOE)

Section

- 3(i) - the Minister of the Environment may appoint committees to perform such advisory functions as the Minister considers advisable
- 5 - no discharge of contaminants into the natural environment in excess of regulations. Subsection(2) exempts animal wastes disposed of in accordance with normal farming practice

Farm Practices Protection Act, 1987 (OMAF)

Section

- 1 - defines a normal farm practice
- 3(1) - the Farm Practices Protection Board is established whose members are appointed by the Minister of Agriculture and Food
- 5(1) - a complainant may apply to the Board for a determination as to whether the odour, noise or dust results from a normal farm practice

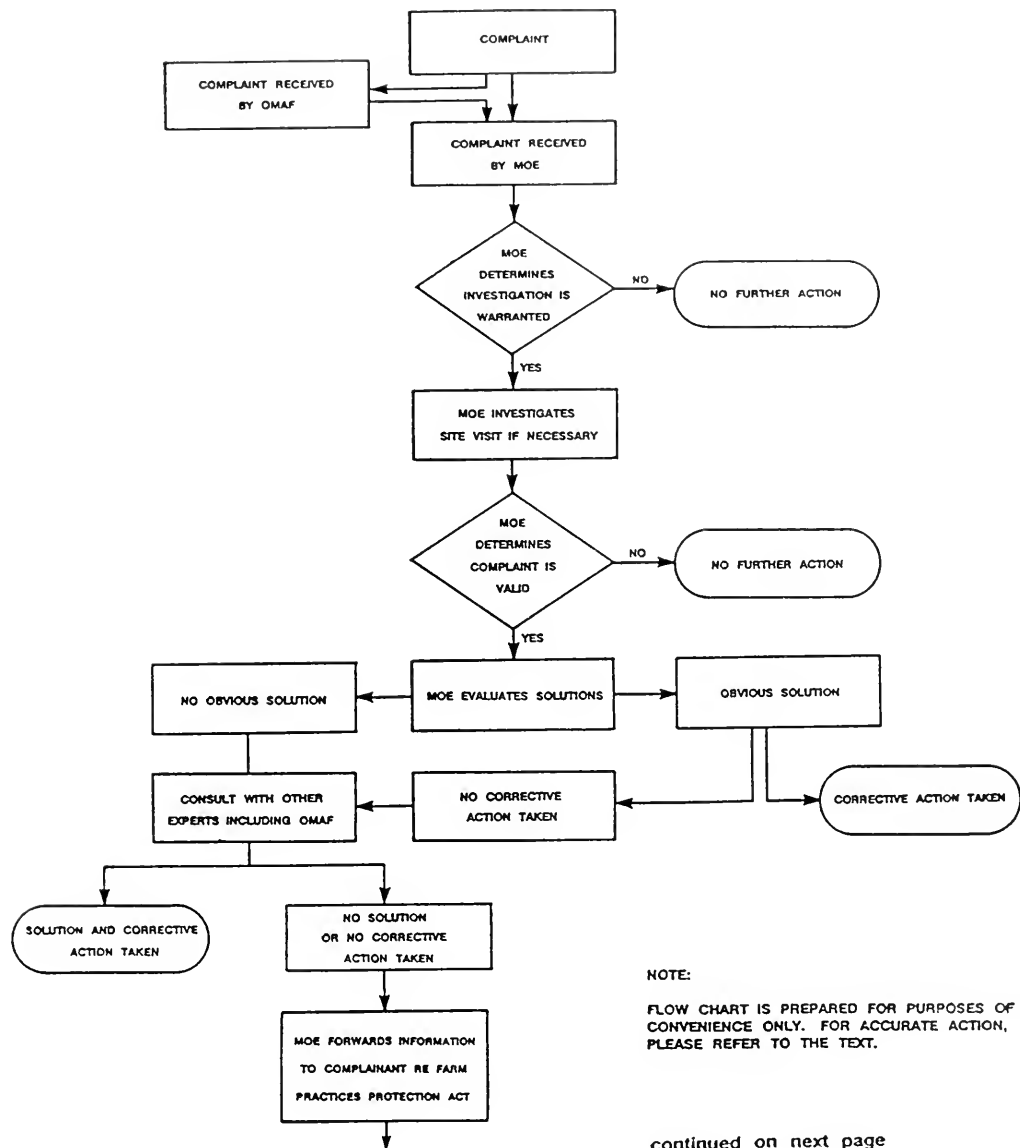
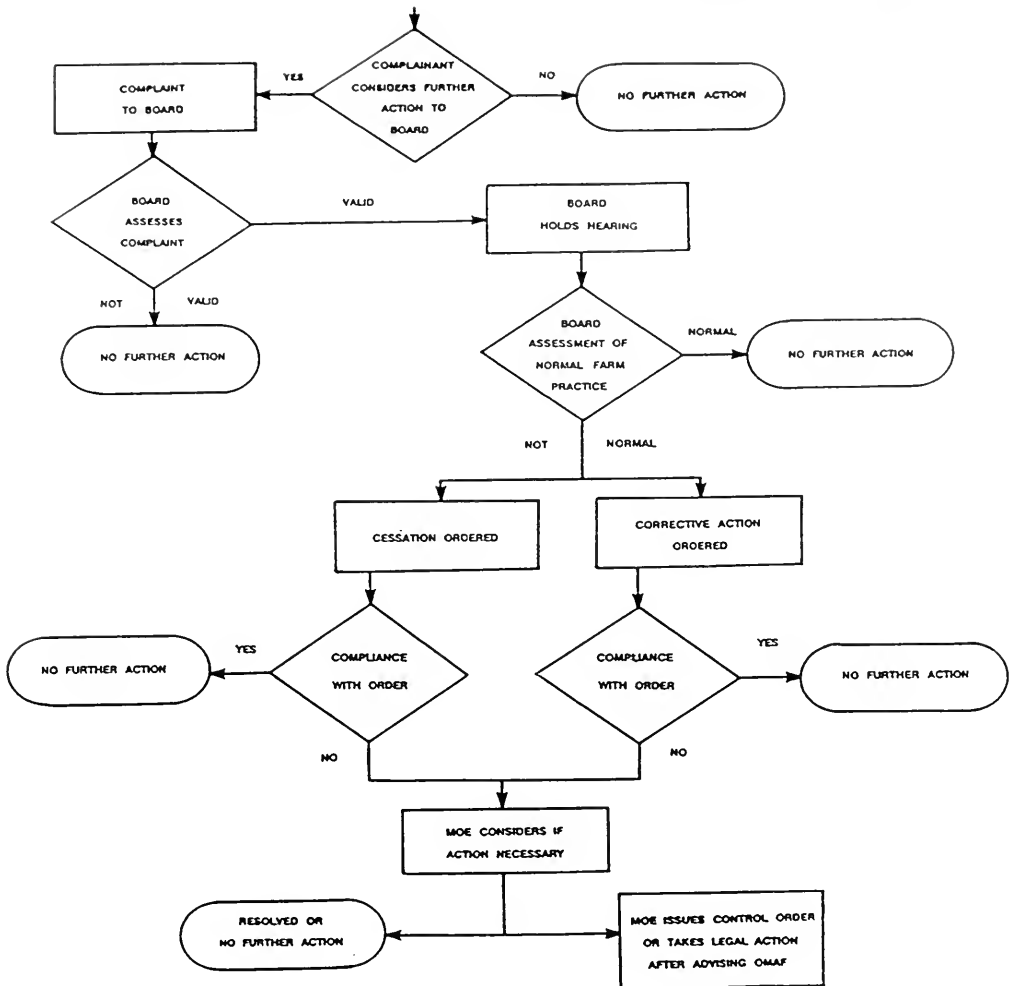


FIGURE 4.1 PROTOCOL FOR HANDLING ODOUR, NOISE AND DUST INCIDENTS

continued from previous page



NOTE:

FLOW CHART IS PREPARED FOR PURPOSES OF
CONVENIENCE ONLY. FOR ACCURATE ACTION,
PLEASE REFER TO THE TEXT.

FIGURE 4.1 PROTOCOL FOR HANDLING ODOUR, NOISE AND DUST
INCIDENTS

REFERENCES

Ministry of Agriculture and Food, Ministry of the Environment, and Ministry of Housing, 1976. Agricultural Code of Practice.

Ministry of the Environment. Use of Farm Pollution Advisory Committee, MOE Policy No. 12-01.

LEGISLATION AND RESPONSIBLE AGENCY

Environmental Protection Act, R.S.O. 1980, Chapter 141 as amended.
(Ministry of the Environment)

Farm Practices Protection Act, 1987, S.O. 1988, Chapter 62.
(Ministry of Agriculture and Food)

8. PROTOCOL FOR HANDLING MEDIA CONTACTS

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8. PROTOCOL FOR HANDLING MEDIA CONTACTS

8.1 APPLICABILITY

These protocols apply to contacts made by staff with the media in relation to farm pollution-related incidents, including those involving: farm waste; improper disposal of dead livestock; pesticides; well water quality; Certificate of Compliance; Minimum Distance Separation Formula 1; and noise, odour, and other nuisance type incidents.

8.2 BACKGROUND

During the investigation and resolution of one of the situations for which protocols have been established, the media sometimes becomes involved. To ensure the flow of appropriate information and the coordination of the agencies, the following protocol has been established.

8.3 DEFINITIONS

Lead Agency - the agency identified as the lead under the applicable protocol

Involved Agency - includes both the Ministry of the Environment and the Ministry of Agriculture and Food, and may also include other agencies mentioned in the protocol (eg. the local health unit or municipality)

8.4 PROTOCOLS

1. When the media makes contact regarding a farm pollution incident, the lead agency is identified as the lead under the applicable protocol.
2. The lead agency determines the details of the media request and deadlines for response.
3. The lead agency will coordinate with other involved agencies on a mutually acceptable response.
4. Press releases and conferences on the incidents covered by the protocols shall involve the coordinated (time, place, and content) participation of all involved agencies.

OCTOBER 1988

APPENDIX I

MINISTRY OF AGRICULTURE AND FOOD CONTACTS

APPENDIX I

MINISTRY OF AGRICULTURE AND FOOD CONTACTS

A. REGIONAL HEADS OF AGRICULTURAL ENGINEERING SERVICES /
AGRICULTURAL ENGINEERS / ENGINEERING TECHNICIANSREGIONAL HEADS / AGRICULTURAL ENGINEERSALFRED REGIONCOUNTY/REGION

OMAF, ACAFT Campus
Alfred, Ont. KOB 1A0
(613) 679-2218

REGIONAL HEAD

OMAF, ACAFT Campus
Alfred, Ont. KOB 1A0
(613) 679-2218

Prescott, Russell

OMAF, Box 579
Alexandria, Ont. KOC 1A0
(613) 525-1046

Glengarry, Stormont

CENTRALIA REGIONCOUNTY/REGION

OMAF, CCAT Campus
Huron Park, Ont. NOM 1Y0
(519) 228-6691

REGIONAL HEAD

OMAF, Box 1330
Walkerton, Ont. NOG 2V0
(519) 881-3301

Bruce

OMAF, 413 Hibernia St.
Stratford, Ont. N5A 5W2
(519) 271-0280

Perth

OMAF, Box 159
Clinton, Ont. NOM 1L0
(519) 482-3428

Huron

OMAF, 181 Toronto St. S.
Markdale, Ont. NOC 1H0
(519) 986-2040

Grey

OMAF, Newmarket Plaza
Newmarket, Ont. L3Y 2N1
(416) 895-4519

York, Durham West, Peel,
Kenora, Rainy River,
Thunder Bay

OMAF, Box 370
Alliston, Ont. LOM 1A0
(705) 435-5521

Simcoe N. & S., Dufferin

CENTRALIA REGION

OMAF
Guelph Agriculture Centre
Box 1030
Guelph, Ont. N1H 6N1

OMAF, 279 Weber St. N.
Waterloo, Ont. N2J 3H8
(519) 884-5390

OMAF, Box 159
Fergus, Ont. N1M 2W7
(519) 843-2231 & 846-0941

KEMPTVILLE REGION

OMAF, KCAT Campus
Kemptville, Ont. K0G 1J0
(613) 258-3411

OMAF, KCAT Campus
Kemptville, Ont. K0G 1J0
(613) 258-3411

OMAF, Box 651
1055 Princess St.
Kingston, Ont. K7L 4X1
(613) 545-4360

OMAF, 26 Thorncliff Place
Nepean, Ont. K2H 6L2
(613) 828-9167

OMAF, Box 820
Brighton, Ont. K0K 1H0
(613) 475-1630

OMAF, 322 Kent St. W.
Lindsay, Ont. K9V 2Z9
(705) 324-6125

NEW LISKEARD REGION

OMAF, NLCAT Campus
New Liskeard, Ont. P0J 1P0
(705) 647-6738

OMAF, 222 McIntyre St. W.
North Bay, Ont. P1B 2Y8
(705) 474-3050

COUNTY/REGION

Wellington

Waterloo

Wellington, Halton

COUNTY/REGION

REGIONAL HEAD

Grenville, Dundas, Lanark

Frontenac, Lennox &
Addington, Leeds

Carleton, Renfrew

Northumberland, Hastings,
Prince Edward

Victoria, Peterborough,
Durham East, Muskoka,
Haliburton

COUNTY/REGION

REGIONAL HEAD

Algoma, Cochrane,
Nipissing, Manitoulin,
Sudbury, Parry Sound,
Temiskaming

RIDGETOWN REGION

OMAF, RCAT Campus
Ridgetown, Ont. NOP 2C0
(519) 674-5456

OMAF, Box 666
Oxford Regional Centre
Hwy 59 N.
Woodstock, Ont. N4S 7Z5
(519) 537-6621

OMAF, 46 Fox St.
Essex, Ont. N8M 2S2
(519) 776-7361

OMAF, Extension Building
Victoria Ave.
Vineland Station, Ont. L0R 2E0
(416) 562-4142

OMAF, Box 129
28 Cayuga St.
Cayuga, Ont. NOA 2E0
(416) 772-3381

OMAF, 207 Greenwick St.
Brantford, Ont. N3S 2X7
(519) 759-4190

OMAF, Box 730
4238 Petrolia St.
Petrolia, Ont. NON 1R0
(519) 882-0180

OMAF, 50 King St.
London, Ont. N6A 2P2
(519) 434-6811

OMAF, 594 Talbot St.
St. Thomas, Ont. N5P 1C7
(519) 631-4700

ENGINEERING TECHNICIANS

OMAF, Box 159
Clinton, Ont. NOM 1L0
(519) 482-3428

OMAF, 594 Talbot St.
St. Thomas, Ont. N5P 1C7
(519) 631-4700

COUNTY/REGION

REGIONAL HEAD

Oxford

Essex - Kent

Niagara N & S

Haldimand - Norfolk

Brant,
Hamilton - Wentworth

Lambton

Middlesex

Elgin

COUNTY/REGION/COLLEGE

Huron

Elgin

ENGINEERING TECHNICIANSCOUNTY/REGION/COLLEGE

OMAF, KCAT Campus
Kemptville, Ont. K0G 1J0
(613) 237-4694

Kemptville College

OMAF, Newmarket Plaza
Newmarket, Ont. L3Y 2N1
(416) 895-4519

York

OMAF, RCAT Campus
Ridgetown, Ont. NOP 2C0
(519) 674-5456

Kent
Ridgetown College

OMAF, 26 Thorncliff Place
Nepean, Ont. K2H 6L2
(613) 828-9167

Carleton

OMAF, Box 1330, 10 Jackson St.
Walkerton, Ont. N0G 2V0
(519) 881-3301

Bruce

OMAF, Box 820
Brighton, Ont. K0K 1H0
(613) 475-1630

Northumberland

B. AGRICULTURAL REPRESENTATIVES

<u>County/ District</u>	<u>Telephone No.</u>	<u>Address</u>
ALGOMA	705 253-1161	1496 Wellington St. E. Sault Ste Marie P6A 2R1
BRANT	519 759-4190	207 Greenwich St. Brantford N3S 2X7
BRUCE	519 881-3301	Box 1330 Walkerton NOG 2V0
CARLETON	613 828-9167	26 Thorncliff Pl. Nepean K2H 6L2
COCHRANE N.	705 335-5828	Experimental Farm Kapuskasing P5N 2X9
COCHRANE S.	705 273-2509	Box 608 Matheson, POK 1N0
DUFFERIN	519 941-3830	R. R. #4 Orangeville L9W 2Z1
DUNDAS	613 774-2313	Box 488 Winchester K0C 2K0
DURHAM EAST	416 623-3348	234 King St. E. Bowmanville L1C 1P5
DURHAM WEST	416 852-3328	Box 309 Uxbridge L0C 1K0
ELGIN	519 631-4700	594 Talbot St. St. Thomas N5P 1C7
ESSEX	519 776-7361	46 Fox St. Essex N8M 2S2
FRONTENAC	613 545-4360	Box 651 1055 Princess St. Kingston, K7L 4X1
GLENGARRY	613 525-1046	Box 579 Alexandria K0C 1A0
GRENVILLE	613 258-8295	Box 2004, Prov. Bldg. Kemptville K0G 1J0
GREY	519 986-2040	181 Toronto St. S. Markdale N0C 1H0
HALDIMAND	416 772-3381	Box 129 Cayuga N0A 1E0
HALTON	416 878-2314	17 Wilson Dr. Milton L9T 3J7
HASTINGS	613 395-3393	Box 340 Stirling K0K 3E0
HURON	519 482-3428	Box 159 Clinton NOM 1L0
KENORA	807 223-2415	Ont. Gov't. Bldg. Box 3000 Dryden P8N 3B3
KENT	519 354-2150	Box 726 435 Grand Ave. W. Chatham N7M 5L1

<u>County/ District</u>	<u>Telephone No.</u>	<u>Address</u>
LAMBTON	519 882-0180	Box 730 Petrolia N0N 1R0
LANARK	613 267-1063	10 Sunset Blvd. Perth K7H 2Y2
LEEDS	613 342-2124	Box 635 Brockville K6V 5V8
LENNOX & ADD.	613 354-3371	41 Dundas St. W. Napanee K7R 1Z5
MANITOULIN	705 282-2043	Box 328 Gore Bay P0P 1H0
MIDDLESEX	519 434-6811	50 King St. London N6A 2P2
MUSKOKA & P.S.	705 789-8886	Box 130 Huntsville P0A 1K0
NIAGARA N.	416 562-4142	Vineland Station L0R 2E0
NIAGARA S.	416 732-7552	574 South Pelham St. Welland L3C 3C6
NIPISSING	705 474-3050	222 McIntyre St. W. North Bay P1B 2Y8
NORFOLK	519 426-7120	Box 587 Simcoe N3Y 4N5
NORTHUMBERLAND	613 475-1630	Box 820 Brighton K0K 1H0
OXFORD	519 537-6621	Box 666 Woodstock N4S 7Z5
PEEL	416 451-5474	35 Van Kirk Dr. Unit 9 Brampton L7A 1A5
PERTH	519 271-0280	413 Hibernia St. Stratford N5A 5W2
PETERBOROUGH	705 745-2403	55 George St. N. Peterborough K9J 3G2
PRESCOTT	613 673-5115	Box 110 Plantagenet K0B 1L0
PRINCE EDWARD	613 476-3224	Box 470 Picton K0K 2T0
RAINY RIVER	807 482-2310	Front St. Emo P0W 1E0
RENFREW	613 432-4841	315 Raglan St. S. Renfrew K7V 1R6
RUSSELL	613 443-3391	666 Rue Notre Dame Box 540 Embrun K0A 1W0
SIMCOE N.	705 322-2231	Box 340 Elmvale L0L 1P0
SIMCOE S.	705 435-5521	Box 370 Alliston L0M 1A0
STORMONT	613 346-2143	Box 97 Avonmore, K0C 1C0

<u>County/ District</u>	<u>Telephone No.</u>	<u>Address</u>
SUDBURY	705 566-1630	1899 LaSalle Blvd. Sudbury P3A 2A3
TEMISKAMING	705 647-6701	Box "G" New Liskeard P0J 1P0
THUNDER BAY	807 475-1631	Ont. Gov't. Bldg. 435 James St. S. Thunder Bay P7E 6E3
VICTORIA- HALIB.	705 324-6125	322 Kent St. W. Lindsay K9V 2Z9
WATERLOO	519 884-5390	279 Weber St. N. Waterloo N2J 3H8
WELLINGTON	519 846-0941	R. R. #1 Fergus N1M 2W3
WENTWORTH	416 527-2995	R. R. #1 Ancaster L9G 3K9
YORK	416 895-4519	Newmarket Plaza Newmarket L3Y 2N1

C. ANIMAL INDUSTRY BRANCH

1st Floor	AIB House
Guelph Agriculture Centre	University of Guelph
P.O. Box 1030	Guelph, Ontario
Guelph, Ontario	N1H 6R8
N1H 6N1	(519) 824-4120
(519) 823-5700	

D. FOODLAND PRESERVATION BRANCH

(Refer to Map on Page AI.10)

8th Floor
801 Bay Street
Toronto, Ontario
M7A 2B2
(416) 965-9433

Land Use Specialists

594 Talbot St.	Area 1A
St. Thomas, Ontario	
N5P 1C7	
(519) 631-4700	

R.R. #1	Area 1B
Ancaster, Ontario	
L9G 3K9	
(416) 527-2995	

8th Floor	Area 1C
801 Bay Street	Area 2C
Toronto, Ontario	
M7A 2B2	
(416) 965-9433	

R. R. #1	Area 2A
Fergus, Ontario	
N1M 2W3	
(519) 846-0941	

Box 340	Area 2B
Elmvale, Ontario	
L0L 1P0	
(705) 322-2231	

322 Kent St. W.	Area 3A
Lindsay, Ontario	
K9V 2Z9	
(705) 324-6125	

Land Use Specialists

41 Dundas St. W. Area 3B
Napanea, Ontario
K7R 1Z5
(613) 354-3371

Box 2004 Area 3C
Kemptonville, Ontario
K0G 1J0
(613) 258-8306

E. LIVESTOCK INSPECTION BRANCH

6th Floor
801 Bay Street
Toronto, Ontario
M7A 1B3
(416) 965-5841

F. PLANT INDUSTRY BRANCH

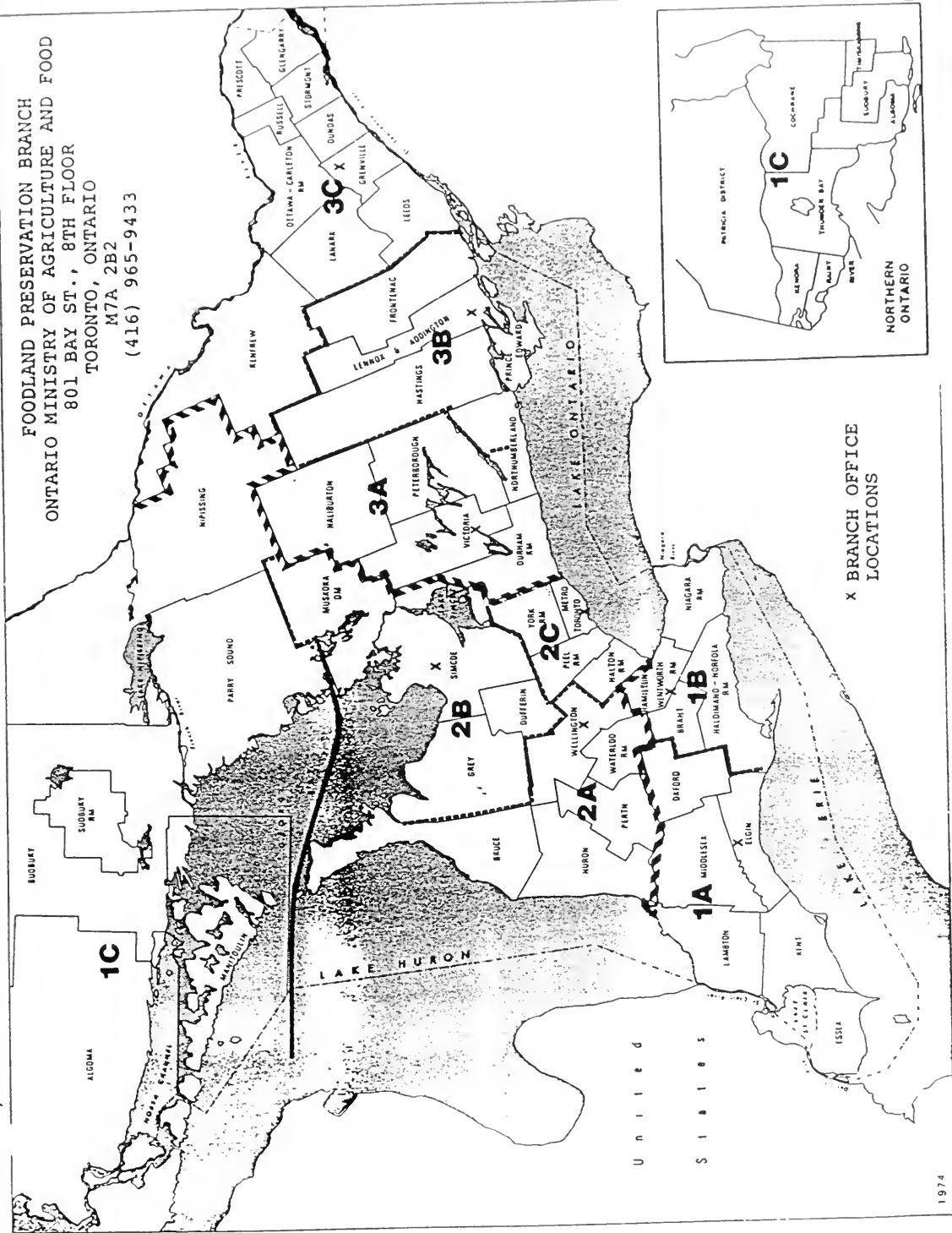
Plant Industry Branch
3rd Floor
Guelph Agriculture Centre
P.O. Box 1030
Guelph, Ontario
N1H 6N1
(519) 823-5700

G. QUALITY AND STANDARDS DIVISION

Quality & Standards Division
6th Floor
801 Bay Street
Toronto, Ontario
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H. SOIL AND WATER MANAGEMENT BRANCH

Soil and Water Management Branch
Guelph Agriculture Centre
P.O. Box 1030
Guelph, Ontario
N1H 6N1
(519) 767-3561



FOODLAND PRESERVATION BRANCH
ONTARIO MINISTRY OF AGRICULTURE AND FOOD
801 BAY ST., 8TH FLOOR
TORONTO, ONTARIO
M7A 2B2
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X BRANCH OFFICE
LOCATIONS

OCTOBER 1988

APPENDIX II

MINISTRY OF THE ENVIRONMENT CONTACTS

APPENDIX II

MINISTRY OF THE ENVIRONMENT CONTACTS

A. AGRICULTURAL AND INDUSTRIAL CHEMICALS SECTION,
HAZARDOUS CONTAMINANTS COORDINATION BRANCH

7th Floor
40 St. Clair Avenue West
Toronto, Ontario
M4V 1M2
(416) 323-5099

B. LAND USE PLANNING UNIT, ENVIRONMENTAL APPROVALS AND
LAND USE PLANNING BRANCH

9th Floor
135 St. Clair Avenue West
Toronto, Ontario
M4V 1P5
(416) 323-4450

Farm Pollution Advisory Committee (FPAC)
Liaison Officer: (416) 323-4450

C. NOISE ASSESSMENT AND SYSTEMS SUPPORT UNIT,
ENVIRONMENTAL APPROVALS AND LAND USE PLANNING BRANCH

9th Floor
135 St. Clair Avenue West
Toronto, Ontario
M4V 1P5
(416) 323-4458

D. SPILLS ACTION CENTRE

Spills Action Centre
5th Floor
7 Overlea Blvd.
Toronto, Ontario
M4H 1A8
(416) 965-9619
Toll Free No. 1-800-268-6060

E. WATER RESOURCES BRANCH

4th Floor
1 St. Clair Avenue West
Toronto, Ontario
M4V 1K6
(416) 323-4941

F. REGIONAL AND DISTRICT OFFICESCENTRAL REGION

Includes: Durham, Haliburton, Halton, Metro Toronto, Muskoka, Northumberland, Peel, Peterborough, Simcoe, Toronto, Victoria, York.

Toronto Regional Office
4th Floor
7 Overlea Blvd.
Toronto, Ontario
M4H 1A8
(416) 424-3000

Peterborough District Office
139 George Street North
Peterborough, Ontario
K9J 3G6
IC 893 (705) 743-2972

Barrie District Office
12 Fairview Road
Barrie, Ontario
L4N 4P3
IC 847 (705) 726-1730

Toronto District Office
4th Floor
7 Overlea Blvd.
Toronto, Ontario
M4H 1A8
(416) 424-3000

Halton-Peel District Office
Suite 401
1235 Trafalgar Road
Oakville, Ontario
L6H 3P1
(416) 844-5747

York Durham District Office
4th Floor
7 Overlea Blvd.
Toronto, Ontario
M4H 1A8
(416) 424-3000

Muskoka Haliburton
District Office
Gravenhurst Plaza
General Delivery
Gravenhurst, Ontario
P0C 1G0
IC 846 (705) 687-3408

NORTHEASTERN REGION

Includes: Algoma, Cochrane, Manitoulin, Nipissing, Parry Sound, Sudbury, Timiskaming.

Sudbury Regional Office
11th Floor
199 Larch Street
Sudbury, Ontario
P3E 5P9
IC 841 (705) 675-4501

Sault Ste. Marie
District Office
445 Albert Street East
Sault Ste. Marie, Ontario
P6A 2J9
IC 842 (705) 949-4640

North Bay District Office
Northgate Plaza
1500 Fisher Street
North Bay, Ontario
P1B 2H3
IC 843 (705) 476-1001

Sudbury District Office
11th Floor
199 Larch Street
Sudbury, Ontario
P3E 5P9
IC 841 (705) 675-4501

Parry Sound Sub Office
74 Church Street
Parry Sound, Ontario
P2A 1Z1
IC 858 (705) 746-2139

Timmins District Office
83 Algonquin Blvd. West
Timmins, Ontario
P4N 2R4
IC 882+705 (705) 268-3222

NORTHWESTERN REGION

Includes: Kenora, Rainy River, Thunder Bay.

Thunder Bay Regional Office
P.O. Box 5000
3rd Floor
435 James Street South
Thunder Bay, Ontario
P7C 5G6
IC 844 (807) 475-1205

Thunder Bay District Office
P.O. Box 5000
3rd Floor
435 James Street South
Thunder Bay, Ontario
P7C 5G6
IC 844 (807) 475-1315

Kenora District Office
P.O. Box 5150
808 Robertson Street
Kenora, Ontario
P9N 1X9
IC 884+807 (807) 468-5578

SOUTHEASTERN REGION

Includes: Dundas, Frontenac, Glengarry, Grenville, Hastings, Lanark, Leeds, Lennox & Addington, Ottawa-Carleton, Prescott, Prince Edward, Renfrew, Russell, Stormont.

Kingston Regional Office
P.O. Box 820
133 Dalton Avenue
Kingston, Ontario
K7L 4X6
IC 823 (613) 549-4000

Kingston District Office
P.O. Box 820
133 Dalton Avenue
Kingston, Ontario
K7L 4X6
IC 823 (613) 549-4000

Belleville Sub-Office
15 Victoria Avenue
Belleville, Ontario
K8N 1Z5
IC 827 (613) 962-9208

Ottawa District Office
2nd Floor
2378 Holly Lane
Ottawa, Ontario
K1V 7P1
IC 821 (613) 521-3450

Cornwall District Office
205 Amelia Street
Cornwall, Ontario
K6H 3P3
IC 810 (613) 933-7402

Pembroke Sub-Office
1000 MacKay Street
Pembroke, Ontario
K8B 1A3
IC 859 (613) 732-3643

SOUTHWESTERN REGION

Includes: Bruce, Elgin, Essex, Grey, Huron, Kent, Lambton, Middlesex, Oxford, Perth.

London Regional Office
985 Adelaide Street South
London, Ontario
N6E 1V3
IC 813 (519) 661-2200

Owen Sound District Office
1180-20th Street
Owen Sound, Ontario
N4K 6H6
IC 840 (519) 371-2901

Chatham Sub-Office
P.O. Box 726
435 Grand Avenue West
Chatham, Ontario
N7M 5L1
IC 812 (519) 354-2150

Sarnia District Office
Suite 109
265 North Front Street
Sarnia, Ontario
N7T 7X1
IC 863 (519) 336-4030

Clinton Sub-Office
P.O. Box 688
Clinton, Ontario
N0M 1L0
IC 853 (519) 482-3428

Windsor District Office
6th Floor
250 Windsor Avenue
Windsor, Ontario
N9A 6V9
IC 814 (519) 254-2546

WEST CENTRAL REGION

Includes: Brant, Dufferin, Haldimand-Norfolk, Hamilton-Wentworth, Niagara, Waterloo, Wellington.

Hamilton Regional Office
P.O. Box 2112, 12th Floor
119 King Street West
Hamilton, Ontario
L8N 3Z9
IC 811 (416) 521-7640

Hamilton District Office
P.O. Box 2112, 9th Floor
119 King Street West
Hamilton, Ontario
L8N 3Z9
IC 811 (416) 521-7732

Cambridge District Office
P.O. Box 219
400 Clyde Road
Cambridge, Ontario
N1R 5T8
IC 815 (519) 653-1511

Welland District Office
637-641 Niagara St. N.
Welland, Ontario
L3C 1L9
IC 819 (416) 384-9896

APPENDIX III

MINISTRY OF CONSUMER AND COMMERCIAL
RELATIONS CONTACTS

APPENDIX III

MINISTRY OF CONSUMER AND COMMERCIAL RELATIONS CONTACTS

Fuels Safety Branch
4th Floor
3300 Bloor Street West
Etobicoke, Ontario
M8X 2X4
(416) 239-2948

Fuels Safety Branch
5th Floor
119 King Street West
Hamilton, Ontario
L8N 3Z9
IC 811 (416) 521-7559

Fuels Safety Branch
Ontario Government Building
435 James Street
P.O. Box 5000
Thunder Bay, Ontario
P7C 4T3
IC 844 (807) 475-1641

Fuels Safety Branch
80 Dundas Street
P.O. Box 5600
London, Ontario
N6A 2P3
IC 813 (519) 679-7150

Fuels Safety Branch
7 Park Crescent
Amherstview, Ontario
K7N 1L7
IC 823 (613) 389-2830

OCTOBER 1988

APPENDIX IV

MINISTRY OF NATURAL RESOURCES CONTACTS

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MINISTRY OF NATURAL RESOURCES CONTACTS

REGIONAL OFFICES

Algonquin Region
P. O. Box 9000
Brendale Square
Manominee St.
Huntsville, Ont.
POA 1K0
IC 845 (705) 789-9611

Eastern Region
P. O. Box 2002
Concession Rd.
Kemptville, Ont.
KOG 1J0
IC 880 (613) 258-8201

Northeastern Region
199 Larch St.
Sudbury, Ont.
P3E 5P9
(705) 675-4120

Northwestern Region
P. O. Box 5160
810 Robertson St.
Kenora, Ont.
P9N 3X9
IC 884+807 (807) 468-3111

Central Region
10670 Yonge St.
Richmond Hill, Ont.
L4C 3C9
(416) 883-3256

North Central Region
P. O. Box 5000
Ontario Government Bldg.
435 James St. S.
Thunder Bay, Ont.
P7C 5G6
IC 844 (807) 475-1261

Northern Region
140-4th Ave.
Cochrane, Ont.
P0L 1C0
IC 882+705 (705) 272-7014

Southwestern Region
P. O. Box 5463
659 Exeter Rd. (Hwy 135)
London, Ont.
N6A 4L6
IC 813 (519) 661-2800

APPENDIX V
LOCAL HEALTH UNITS

APPENDIX V

LOCAL HEALTH UNITS

Algoma Health Unit
6th Floor, Civic Centre
99 Foster Drive
Sault Ste Marie, Ont.
P6A 5X6
(705) 949-9111 Ext. 338

Bruce County Health Unit
County Building
Cayley St., Box 248
Walkerton, Ont.
N0G 2V0
(519) 881-1920

Durham Regional Health Unit
Community Health Services Ctr.
301 Golf St.
Oshawa, Ont.
L1G 4B2
(416) 723-8521

Elgin-St. Thomas Health Unit
2 Wood St.
St. Thomas, Ont.
N5R 4K9
(519) 631-9900

County of Grey-Owen Sound
Health Unit
County Bldg.
595-9th Ave E.
Owen Sound, Ont.
N4K 3A3
(519) 376-9420

Haliburton, Kawartha,
Pine Ridge District Health Unit
Box 337
Cobourg, Ont.
K9A 4K8
(416) 372-0175

Hamilton-Wentworth Regional
Health Unit
74 Hughson St. S., Box 897
Hamilton, Ont.
L8N 2A8
(416) 528-1441

Brant County District
Health Unit
194 Terrace Hill St.
Brantford, Ont.
N3R 1G7
(519) 753-7377

Borough of East York County
Health Unit
550 Mortimer Ave.
Toronto, Ont.
M4J 2H2
(416) 461-8136

Eastern Ontario Health Unit
1000 Pitt St., 2nd Floor
Justice Bldg.
Cornwall, Ont.
K6J 3F5
(613) 933-1375

Etobicoke Health Dept.
Etobicoke Civic Centre
Etobicoke, Ont.
M9C 2Y2
(416) 626-4211

Haldimand-Norfolk
Regional Health Unit
365 West St., Box 247
Simcoe, Ont.
N3Y 4L1
(519) 426-6170

Halton Regional Health Unit
1151 Bronte Rd.
Oakville, Ont.
L6J 6E1
(416) 827-2151 Ext. 281

Hastings and Prince Edward
Counties Health Unit
208 Bridge St. E.
Belleville, Ont.
K8N 1N8
(613) 966-5500

Huron County Health Unit
Court House
Goderich, Ont.
N7A 1M2
(519) 482-3416

Kingston, Frontenac, & Lennox
and Addington Health Unit
221 Portsmouth Ave.
Kingston, Ont.
K7M 1V5
(613) 549-1232

Leeds, Grenville & Lanark
District Health Unit
70 Charles St.
Brockville, Ont.
K6V 5V2
(613) 345-5685

Muskoka-Parry Sound Health
Unit
Pine St., Box 1019
Bracebridge, Ont.
POB 1C0
(705) 645-4471

North Bay & District Health
Unit
200 McIntyre St. E., Box 185
North Bay, Ont.
P1B 8H2
(705) 474-1400

North York Health Dept.
5100 Yonge St.
Willowdale, Ont.
M2N 5V7
(416) 224-6315

The Oxford County Board
of Health
509 Brant St., Box 485
Woodstock, Ont.
N4S 7Y5
(519) 539-6121

Kent-Chatham Health Unit
435 Grand Ave. W., Box 1136
Chatham, Ont.
N7M 5L8
(519) 352-7270

Lambton Health Unit
333 George St.
Sarnia, Ont.
N7T 4P5
(519) 344-5293

Middlesex-London District
Health Unit
367 Ridout St. N.
London, Ont.
N6A 2P1
(519) 673-0110

Niagara Regional Area
Health Unit
130 Lockhart Dr.
St. Catharines, Ont.
L2T 1W4
(416) 688-3762

Northwestern Health Unit
15 Ocean Ave. W.
R. R. #1
Kenora, Ont.
P9N 3W7
(807) 468-3147

Ottawa-Carleton Regional
Health Unit
1827 Woodward Dr.
Ottawa, Ont.
K2C 0R5
(613) 226-1152

Peel Regional Health Unit
10 Peel Centre Dr.
Brampton, Ont.
L6T 4B9
(416) 791-9400

Perth District Health Unit
653 West Gore St.
Stratford, Ont.
N5A 1L4
(519) 271-7600

Porcupine Health Unit
169 Pine St. S.
Timmins, Ont.
P4N 8B7
(705) 267-1181

Scarborough Health Dept.
Scarborough Civic Centre
160 Borough Dr.
Scarborough, Ont.
M1P 4N8
(416) 296-7431

Sudbury & District Health Unit
1300 Paris Cresc.
Sudbury, Ont.
P3E 3A3
(705) 522-9200

Timiskaming Health Unit
3rd St., Box 670
Englehart, Ont.
P0J 1H0
(705) 544-2221

Waterloo Regional Health Unit
850 King St. W.
Kitchener, Ont.
N2G 1E8
(519) 744-7357

Metro Windsor-Essex County Health Unit
1550 Ouelette Ave.
Windsor, Ont.
N8X 1K7
(519) 258-2146

York Regional Health Unit
22 Prospect St.
Newmarket, Ont.
L3Y 3S9
(416) 895-4511

Peterborough County-City Health Unit
835 Weller St., Box 246
Peterborough, Ont.
K9J 4Y1
(705) 743-1160

Renfrew County and District Health Unit
1217 Pembroke St. E.
Box 940
Pembroke, Ont.
K8A 7M5
(613) 732-3629

Simcoe County District Health Unit
County Administration Ctr.
Midhurst, Ont.
L0L 1X0
(705) 726-0100

Thunder Bay District Health Unit
300 Lillie St. N., Box 1024
Thunder Bay "F", Ont.
P7C 4X8
(807) 622-3961

Toronto City Health Dept.
7th Floor, East Tower
City Hall, 100 Queen St. W.
Toronto, Ont.
M5H 2N2
(416) 367-7401

Wellington-Dufferin-Guelph Health Unit
205 Queen St. E.
Fergus, Ont.
N1M 1T2
(519) 843-2460

York Borough Health Dept.
2700 Eglinton Ave. W.
Toronto, Ont.
M6M 1V1
(416) 653-2700 Ext. 217

APPENDIX VI
LABORATORIES

APPENDIX VI
LABORATORIES

A. MINISTRY OF AGRICULTURE AND FOOD

AGRICULTURAL LABORATORY SERVICES (Pesticide Laboratory)

Agricultural Laboratory
Services (Pesticide
Laboratory)
Building #43 McGilvray St.
c/o University of Guelph
Guelph, Ontario
N1G 2W1
IC 816 (519) 823-8800 Ext. 4829

VETERINARY LABORATORY SERVICES

Veterinary Laboratory
Services
1st Floor
Guelph Agriculture Centre
P.O. Box 1030
Guelph, Ontario
N1H 6N1
IC 816 (519) 823-5700

Brighton Laboratory
95 Dundas Street
Brighton, Ontario
K0K 1H0
IC 882+613 (613) 475-1632

Guelph Laboratory
P.O. Box 3612
Guelph, Ontario
N1H 6R8
IC 816 (519) 823-8800

Huron Park Laboratory
Huron Park, Ontario
N0M 1Y0
IC 813 (519) 227-4451

Laboratory Section
Kemptonville Laboratory
Kemptonville, Ontario
K0G 1J0
IC 880 (613) 258-8321

New Liskeard Laboratory
New Liskeard, Ontario
P0J 1P0
IC 854 (705) 647-6701

Ridgetown Laboratory
Ridgetown, Ontario
N0P 2C0
IC 812 (519) 674-5456

B. MINISTRY OF THE ENVIRONMENT

Laboratory Services Branch
P.O. Box 213
125 Resources Road
Rexdale, Ontario
M9W 5L1
(416) 248-3421

London Laboratory
985 Adelaide Street South
London, Ontario
N6E 1V3
IC 813 (519) 681-3600

Kingston Laboratory
Box 820
133 Dalton Avenue
Kingston, Ontario
K7L 4X6
IC 823 (613) 549-4000

Thunder Bay Laboratory
421 James Street South
Thunder Bay, Ontario
P7E 2V6
IC 844 (807) 475-1275

C. MINISTRY OF HEALTH

HAMILTON
P. O. Box 2100
Hamilton, Ontario
L8N 3R5
IC 811 (416) 385-5379
TWX No 610-371-0257

PETERBOROUGH
P. O. Box 265
Peterborough, Ontario
K9J 6Y8
IC 893 (705) 743-6811
TWX No 610-383-0119

KINGSTON
P. O. Box 240
Kingston, Ontario
K7L 4V8
IC 823 (613) 547-2292
TWX No 610-523-1155

SAULT STE. MARIE
P. O. Box 220
Sault Ste. Marie, Ontario
P6A 5L6
IC 842 (705) 254-7132
TWX No 610-344-5002

LONDON
P. O. Box 5704 Terminal A
London, Ontario
N6A 4L6
IC 813 (519) 455-9310
TWX No 610-352-1006

SUDBURY
1300 Paris Crescent
Sudbury, Ontario
P3E 3A3
IC 841 (705) 522-2640

ORILLIA
P. O. Box 600
Orillia, Ontario
L3V 6K5
IC 846 (705) 325-7449
TWX No 610-395-0229

THUNDER BAY
P. O. Box 1100, Station F
Thunder Bay, Ontario
P7C 4X9
IC 844 (807) 622-6449
TWX No 610-493-5323

OTTAWA
P. O. Box 6301, Station J
Ottawa, Ontario
K2A 1S8
IC 821 (613) 828-2442
TWX No 610-562-1958

TIMMINS
67 Wilson Avenue
Timmins, Ontario
P4N 2S5
IC 882+705 (705) 264-9571
TWX No 610-339-0640

PALMERSTON
P. O. Box 700
Palmerston, Ontario
N0G 2P0
IC 882+519 (519) 343-3102
TWX No 610-366-3140

WINDSOR
P. O. Box 1616
Windsor, Ontario
N9A 6S2
IC 814 (519) 969-4341
TWX No 610-362-0715

D. PRIVATE LABORATORIES

Acres International Limited
5259 Dorchester Road
P.O. Box 1001
Niagara Falls, Ontario
L2E 6W1
(416) 354-3831

Aquatic Chemicals Ltd.
19 London Road West
Guelph, Ontario
N1H 2B4
(519) 763-2113

Beak Analytical Services
6870 Goreway Drive
Mississauga, Ontario
L4V 1P1
(416) 671-2600

Bondar-Cleg & Company Ltd.
5420 Canotek Road
Ottawa, Ontario
K1J 8X5
(613) 740-2220

Canpro Laboratories
77 Champaign Drive
Downsview, Ontario
M3J 2C6
(416) 635-8692

Clayton Environmental
Consultants Ltd.
400 Huron Church Road
Windsor, Ontario
N9C 2J9
(519) 255-9797

Daco Laboratories Limited
1131 Erie Street
Stratford, Ontario
N5A 6S2
(519) 273-3023

Alpha Laboratories Inc.
285 Lesmill Road
Don Mills, Ontario
M3B 2V1
(416) 449-2166

Barringer Magenta Limited
304 Carlingview Drive
Rexdale, Ontario
M9W 5G2
(416) 675-3870

Bird-Archer, Inc.
110 Second Street
Cobourg, Ontario
K9A 3N5
1-800-263-3826

Caleb Brett Canada Limited
1135 McGregor Road North
Sarnia, Ontario
N7S 4T1
(519) 336-5112

Canviro Consultants Limited
178 Louisa Street
Kitchener, Ontario
N2H 5M5
(519) 579-3500

Culligan Water Conditioning
(Ontario) Ltd.
10-1031 Hubrey Rd.
London, Ontario
N6N 1B4
(519) 681-2145 or
1-800-265-4677

Dearborn Environmental
Consulting
3451 Erindale Station Road
Mississauga, Ontario
L5A 3T5
(416) 279-2222

Diagnostic Research
Laboratories
1885 Leslie Street
Don Mills, Ontario
M3B 3J4
(416) 445-5809

M. M. Dillon Limited
Divisional Manager
P. O. Box 1850
Station A
47 Sheppard Avenue East
Willowdale, Ontario
M2N 5X5
(416) 229-4646

J.T. Donald Consultants Ltd.
251 Bartley Drive
Toronto, Ontario
M4A 2N7
(416) 751-5230

Enviroclean
C. Chem.
A Division of MacLaren Plansearch
320 Adelaide Street South
London, Ontario
N5Z 3L2
(519) 686-7558

Guelph Chemical
Laboratories Ltd.
246 Silvercreek Parkway N.
Guelph, Ontario
N1H 1E7
(519) 836-2313

Industrial Laboratories
of Canada
95 Town Line Rd.
N4G 2R6
(519) 842-6447

King Technology
20 Morrow Road
Barrie, Ontario
L4N 3V8
(705) 737-4455

Mann Testing
Laboratories Limited
5550 McAdam Road
Mississauga, Ontario
L4Z 1P1
(416) 890-2555

Ontario Research Foundation
Sheridan Park Research
Community
Mississauga, Ontario
L5K 1B3
(416) 822-4111

Peninsula Chemical Analysis
P. O. Box 810
8407 Stanley Avenue, Unit 10
Niagara Falls, Ontario
L2E 6V6
(416) 356-7667

Pollutech
1090 Speers Road
Oakville, Ontario
L6L 2X4
(416) 844-1900

Polytechnic Laboratories Ltd.
1947 Mattawa Avenue
Mississauga, Ontario
L4X 1K8
(416) 275-2777

The Proctor and Redfern Group
45 Greenbelt Drive
Don Mills, Ontario
M3C 3K3
(416) 445-3600

Quatic Chemicals Ltd.
61 Lewis Street
Guelph, Ontario
N1H 1E9
(519) 821-7780

